THE EMERGENCE OF A SOCIAL MARKETING FRAMEWORK TO INCREASE
HAND WASHING AMONG RURAL WOMEN IN TELANGANA, INDIA WHILE
CONDUCTING PARTICIPATORY ACTION RESEARCH (PAR)

by

Mara Katherine Leff

BA, George Washington University, 2011

Submitted to the Graduate Faculty of
the Graduate School of Public Health in partial fulfillment
of the requirements for the degree of

Master of Public Health

University of Pittsburgh

2015
THE EMERGENCE OF A SOCIAL MARKETING FRAMEWORK TO INCREASE HAND WASHING AMONG RURAL WOMEN IN TELANGANA, INDIA WHILE CONDUCTING PARTICIPATORY ACTION RESEARCH (PAR)

Mara Katherine Leff, MPH

University of Pittsburgh, 2015

ABSTRACT

This project examines the feasibility of employing methods associated with the Participatory Action Research (PAR) approach to develop a Social Marketing campaign around hand washing in Southern India. Historically, media and large-scale behavior change communications campaigns have driven public awareness on a myriad of health topics. With that said, these efforts can fail to produce measurable results often due to an absence of important insights into the target audience, and therefore a lack of cultural relevance in messaging efforts. Blending a participatory approach with traditional campaign development tactics that are inherently more top-down, may create more tailored and targeted communication’s strategies. This work applied a unique approach to creating a Social Marketing campaign by engaging the target audience as co-creators in the development process. Focus groups were held with mothers in five study villages selected in Medchal Mandal, an area located in the state of Telangana. During the qualitative analysis process, there was a natural emergence of core Social Marketing campaign components. Participants organically provided suggestions for various campaign concepts within the same framework that is commonly used by Social Marketing professionals. Their suggestions for where, when and how a campaign should be carried out generally mapped on to the Marketing Mix or 4Ps. The study was successful in producing rich insights into the target audience using a feasible approach for community engagement. It also has exciting implications
for future work around participatory campaign development and increased synergy between the fields of participatory research and Social Marketing. It was concluded that moving forward, this blended approach should be further investigated as a potential method for igniting social change.
# TABLE OF CONTENTS

PREFACE ........................................................................................................................................... x

1.0 INTRODUCTION .......................................................................................................................... 2

2.0 BACKGROUND AND SIGNIFICANCE ....................................................................................... 2
  2.1 A Global Epidemic .................................................................................................................. 2
  2.2 Spotlight on India ................................................................................................................... 3
  2.3 Behavior Change as a Solution .............................................................................................. 5
  2.4 Social Marketing as an Essential Tool for Behavior Change ............................................. 5
  2.4.1 Social Marketing Campaign Development Scheme ...................................................... 7
  2.5 Benefits of the Participatory Action Research (PAR) Approach ..................................... 12
  2.6 Visualization of a Blended Approach: PAR and Social Marketing ............................... 14
  2.7 Purpose .................................................................................................................................. 16

3.0 METHODS .................................................................................................................................... 17
  3.1 Setting ..................................................................................................................................... 17
  3.2 Population .............................................................................................................................. 18
  3.3 Intervention ........................................................................................................................... 20
  3.4 Procedure ............................................................................................................................... 20
  3.5 Data Collection ....................................................................................................................... 21
    3.5.1 Group Three Limitations .............................................................................................. 21
    3.5.2 Institutional Review Board (IRB) Approvals ............................................................... 22
  3.6 Measures .................................................................................................................................. 22
  3.7 Analysis .................................................................................................................................... 24

4.0 RESULTS ...................................................................................................................................... 24
  4.1 Demographics ......................................................................................................................... 24
  4.2 Qualitative Results .................................................................................................................. 25
    4.2.1 Theme 1: The importance of where campaign messages are promoted .................. 26
    4.2.2 Theme 2: Outlets for promoting campaign messages .............................................. 27
    4.2.3 Theme 3: The importance of who delivers campaign messages ............................. 30
    4.2.4 Theme 4: Barriers preventing women from adopting behaviors promoted by campaign messaging ........................................................................................................................................... 32
    4.2.5 Slogans and taglines ..................................................................................................... 34
  4.3 Iterative Concept Testing .......................................................................................................... 35
  4.4 Organizing Results within a Social Marketing Framework ............................................... 36

5.0 DISCUSSION ............................................................................................................................ 39
  5.1 Restatement of Main Findings ............................................................................................... 39
  5.2 Comparison with Previous Research .................................................................................... 40
5.3 Implications for Intervention Translation: Campaigns Are Not One Size Fits All .... 42
  5.3.1 Other creative applications for data: Unconventional promotion tactics ............. 43
5.4 Theoretical Implications: Evaluating the Blended Visualization ............................. 44
5.5 Implications for Future Research.................................................................................. 45
  5.5.1 Using the model with other populations................................................................. 46
  5.5.2 Changes to future research protocol ........................................................................ 47
5.6 Limitations......................................................................................................................... 48
  5.6.1 Sampling and Selection Error.................................................................................. 48
  5.6.2 Social Desirability Bias and Conformity ................................................................. 48
  5.6.3 Moderator Limitations ............................................................................................. 49
5.7 Conclusion......................................................................................................................... 49

APPENDIX A: IRB APPROVALS......................................................................................... 51
APPENDIX B: MODERATOR’S GUIDE ............................................................................. 55
BIBLIOGRAPHY .................................................................................................................. 60
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2015 Population Demographics</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>Participant Demographic Data</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Results: The Natural Emergence of the Marketing Mix or 4 Ps</td>
<td>37</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1. The 4 Ps ........................................................................................................................... 9
Figure 2. Visualization of a Blended Approach: PAR and Social Marketing .............................. 16
PREFACE

I would like to thank several people for making this project possible. First and foremost, my thesis committee chair and academic advisor Dr. Jessica Burke for her unwavering support, guidance, and encouragement. Next, I would like to thank Joanne Russell for serving on my committee and for helping me reach my goals of conducting my practicum abroad. Also, thank you to The Center for Global Health for providing the funding opportunity to travel to India to conduct this research. I would also like to thank Dr. Brian Primack for his invaluable contributions as a member of my thesis committee. I would like to acknowledge the individuals at SHARE India for opening their arms to me and providing me with incredible resources and access to conduct my fieldwork. Thank you to Dr. P.S. Reddy and his administrative staff including Nitin Desai and Dr. Jammy Rajesh who served as my practicum preceptor. Also, thank you to Jacquelynn Jones for serving as my secondary coder. I would also like to thank my family and friends for their continued support and love. Lastly, I would like to acknowledge the 49 incredible women that participated in my study. I thank them for opening up and sharing their thoughtful insights with me. They will likely never know how much it meant to me, nor will they know how our discussions will forever inspire me personally and professionally.
“Vulnerable populations absorb health information well if its relevant, localized, integrates well with current cultural and social situations and is entertaining (hardly surprising)… They demand, like all consumers, that the message connects with them and only then will they connect with the message” – Chapal Mehra, The Hindu. January 3, 2013
1.0 INTRODUCTION

This project aims to examine the feasibility of employing methods associated with the Participatory Action Research (PAR) approach to develop a Social Marketing campaign around hand washing in Southern India. Historically, media and large-scale behavior change communications campaigns have driven public awareness on a myriad of health topics. With that said, these efforts can fail to produce measurable results often due to an absence of important insights into the target audience, and therefore a lack of cultural relevance in messaging efforts. This fracture between campaign messaging and consumer response is especially prevalent in hard to reach and vulnerable populations. Blending a participatory approach, with traditional campaign development tactics that are inherently more top-down, may create more tailored and targeted communication’s strategies.

This work applies a unique approach to creating a tailored and targeted Social Marketing campaign by engaging the target audience as co-creators in the development process. This participatory method of involving the target audience in the initial design phase of a communication’s campaign, may improve the overall effectiveness of the efforts by creating more inclusive messaging.

2.0 BACKGROUND AND SIGNIFICANCE

2.1 A Global Epidemic

Globally, diarrheal disease kills around 622,000 children under the age of five each year and is the second leading cause of death in children worldwide. (WHO, 2003) It is also a significant contributor to child malnutrition across the globe. (WHO, 2015) This problem is multifaceted where structural and behavioral components both affect disease burden. Diarrheal
disease is a broad term for gastrointestinal sickness caused by the ingestion of harmful pathogens through the fecal-oral route. This disease burden is attributed to risk factors such as poor sanitation, lack of hygienic behaviors like hand washing, and unsafe drinking water. (Walker, 2013)

It is important to note that the number of under-5 deaths attributed to diarrheal disease has decreased by more than half since 1990 globally. (Qazi, 2015) This reduction may be attributed to a variety of factors including improvements in water and sanitation, increased hand washing behaviors, and improved access to life saving healthcare services such as Oral Rehydration Therapy. It is important to note that in recent years, the Millennium Development Goals (MDG) campaign has drawn attention to this issue and put forth greater emphasis on lowering the incidence of diarrheal disease among the world’s poorest children.

2.2 Spotlight on India

Although the world has seen drastic improvements, the burden of child death due to diarrheal disease is still disproportionally high in India where the country accounts for the highest number of child deaths from diarrhea globally. (UNICEF, 2009) For one of the world’s most rapidly developing countries, behind its skyrocketing Gross Domestic Product lies a serious problem with sanitation and hygiene, ultimately responsible for much of the country’s associated morbidity and mortality among children.

India has the highest number of under-5 deaths globally. Nearly 1.4 million children in India will die before reaching their fifth birthday. (UNDP, 2014) It is important to note that the total number of deaths of children under the age of 5 has declined from 2.5 million in 2001 to 1.5 million in 2012. Although the country has made some progress in lowering its overall under-5 mortality rate, the work is far from done. MDG4, which is focused on improving child survival,
has set a target for India of 38 deaths of children under 5 per 1,000 live births. (Bhan, 2013) The country currently has an under-5 mortality rate of 53 deaths per 1000 live births. (The World Bank, 2015)

One of the leading causes of death for children under-5 in India is diarrheal disease. A staggering 334,000 Indian children under the age of 5 die from diarrheal disease every year. (Black et al, 2010) Many children under-5 face a cycle of poverty perpetuated by a lack of access to proper sanitation facilities as well as a lack of knowledge on the importance of personal hygiene and hand washing. In India’s urban areas in particular, sanitation problems are only getting worse due to overcrowding and a constant influx of people looking for economic opportunity. Persistent diarrhea can lead to dehydration as well as malnutrition, another critical issue for Indian children in this age bracket. In the country, nearly half of all children are stunted (almost 62 million children) which can lead to a weakened immune system and higher susceptibility to infectious disease. (Population Reference Bureau, 2014)

There are various risk factors for diarrheal disease. Today, only 35.1% of India’s population has improved sanitation facilities and only 53% of people wash their hands with soap after defecating. (UNICEF, 2015) Additionally, only 38% wash their hands with soap before eating, and nearly 30% wash their hands with soap before preparing food for themselves or others. (UNICEF, 2015) Hand washing interventions, and other interventions aimed to modify behaviors linked to hygiene and sanitation, are therefore extremely important in this population. In a country where just over half its population regularly washes its hands, changing societal norms around this behavior is crucial for lowering associated disease prevalence.
2.3 Behavior Change as a Solution

Initiatives to address the behavioral issues related to personal hygiene and sanitation practices have proven successful in reducing diarrheal disease around the world. These campaigns have shown that many deadly cases of diarrhea are completely avoidable. Washing hands with soap at critical times during the day can prevent the spread of deadly pathogens into food or water, thus disrupting the cycle of disease. (WHO, 2014) Studies have shown that hand washing can lower the incidence of both diarrheal and acute respiratory infections by nearly 50%. (Cairncross, 2010)

Global Water, Sanitation and Hygiene (WASH) programs have seen a 50% reduction in diarrheal and respiratory infections in children who received weekly hand washing promotion versus children who didn’t receive the interventions around the world. (CDC, 2011) WASH programs consist of education and awareness building, as well as structural improvements aimed to facilitate, and ultimately increase, proper sanitation and hygiene practices in populations facing high communicable disease burdens. The CDC and UNICEF have also determined that WASH programs can save the global health sector $11.6 billion in treatment costs for diarrheal diseases making these programs worthwhile investments for public health, and economic stability and growth. (UNICEF, 2015)

2.4 Social Marketing as an Essential Tool for Behavior Change

Social Marketing is an approach informed by behavioral science aimed to promote social change at the individual, community or systems levels. Although it uses traditional commercial marketing techniques and principles, it differs in its ultimate goal. Commercial marketing aims to sell a tangible product to generate a profit. Social Marketing aims to “sell” a specific behavior to generate personal and societal good or wellbeing. It influences the behaviors of target
audiences by communicating value exchange where the desired behavior is favored over the
inverse risk or threat.

Developed in the 1970s, Social Marketing has been used as an essential tool to improve
health, protect the environment and change communities for the better. Historically, it has been
used in moving the needle on behavior change across various sectors. Landmark Social
Marketing campaigns have been established on a variety of topics including, smoking cessation,
condom use, and malaria prevention through bed net use, among others. Often employing
strategies and tactics informed by a strong evidence base, Social Marketing campaigns aim to
identify barriers and benefits to adopting a particular behavior. Phillip Kotler and Nancy R. Lee,
two influential pioneers of Social Marketing, describe the four most common objectives set forth
by a Social Marketing campaign. Campaigns should influence their target audience by leading
them to accept a new behavior, reject a potentially dangerous or undesirable behavior, modify a
current behavior, or abandon an existing behavior. (Kotler and Lee, 2011) Campaigns may affect
more than one of these at a time.

Social Marketing campaigns have proven successful in changing behaviors by increasing
awareness and education levels in countries across the globe. A case control study in Tanzania
looked at the effectiveness of Social Marketing in increasing the use of insecticide-treated bed
nets among young children and pregnant women. The campaign utilized unique net packaging
created with informative formative research with the target audience. The packaging was
specifically designed to appeal to the consumer base based on cultural and linguistic
considerations. The sample exposed to the Social Marketing campaign had significantly higher
levels of net use. (Schellenberg, 2001)
Another campaign developed in a Swiss hospital aimed to improve hand-hygiene compliance among hospital workers. Through the use of posters displayed in key locations within the hospital, the campaign conveyed various important health and safety messages around hygiene. The posters included information on healthcare acquired infections, cross transmission, and hand hygiene based on issues identified in the formative research stage. The campaign led to an increase in hand washing behavior and a reduction in disease prevalence. (MacDonald, 2012)

Past research has shown that Social Marketing is an effective tool to promote behavior change among various populations. Previous work also emphasizes the importance of using consumer oriented messaging informed by research with the target population. Developing Social Marketing campaigns that effectively spur behavior change require a multistep approach, detailed below.

2.4.1 Social Marketing Campaign Development Scheme

Once a desired behavior, or set of behaviors, has been identified as the focus for a Social Marketing campaign, marketers use a multistep scheme, or systematic framework to develop a program.

Problem Description and Situational Analysis

Problem description is an essential part of the Social Marketing framework. In this phase, it is important to understand why the problem is relevant, what are its underlying factors that may have caused it, and what kinds of data support its scope or magnitude. In this phase it may be relevant to perform a SWOT analysis (strengths, weaknesses, opportunities and threats). Strengths and weaknesses are those factors that can aid in, or hinder the development of a campaign. These may include expertise or lack there of, resource availability or scarcity and message delivery capabilities. Opportunities and threats are those preexisting forces in the
marketing environment that may affect the campaigns outcomes. These factors are often hard to control for. (Kotler and Lee, 2011)

*Formative Research*

Once a strong problem description has been shaped, it is important to identify target audiences and conduct formative research. Many may argue that this stage is one of the most crucial steps in developing a successful Social Marketing campaign. Kotler and Lee describe formative research as “research used to select and understand target markets and develop Marketing Mix strategy.” (Kotler and Lee, 2011) Formative research may produce primary data through new surveys, focus groups, and in depth interviews with the target audience. Formative research may also come from secondary data collected from previous work on the topic. This step happens very early in the campaign development phase. Mah et. al argues that even though secondary sources of formative research may be easier to come by and more cost effective, primary formative research provides richer insights into the local needs and wants thus increasing the effectiveness of the intervention (Mah, 2008).

The project detailed in this document employs a unique approach that uses co-creation and other participatory methods to develop campaign strategies in lieu of traditional secondary data analysis and other forms of formative research. In this particular project, the target audience informed the actual campaign design and messaging as opposed to merely informing a broader campaign strategy.

*Strategy Development and Intervention Design: Marketing Mix or the 4Ps*

Following extensive consumer research, it is time for the strategic application of the Marketing Mix or 4ps. The Marketing Mix forms the foundation for the development of any Social Marketing campaign. The 4Ps, as detailed below, should always be applied to each target
audience segment. In developing a campaign, it is essential to start with the Product, or the desired behavioral outcome. Price refers to costs, both monetary and non-monetary factors like stress or time, associated with adopting the desired behavior or product. Place refers to the primary locations where the target audience will perform or change behaviors, or locations where campaigns messaging will be promoted. Promotion is the last element of the marketing mix because it is ultimately the tool used to convey the product, price and place to the target audience, thus it must come last. Figure 1. is a more detailed description of the 4Ps.

<table>
<thead>
<tr>
<th>PLACE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Where the target audience is located or gathers (physical locations or spaces); and/or where target audience is thinking or hearing about health information</td>
<td>- What does the audience give up to carry out hand washing or other health behaviors (example: money to pay for soap; time to go to the doctor; time/money to miss work for a health related activity )</td>
</tr>
<tr>
<td>- Where the target audience accesses products or services related to health behaviors</td>
<td>- Costs or barriers to making a health behavior change. (example: loss of time, decrease in pleasure, loss of self-esteem, loss of respect from peers, lack of access, or embarrassment)</td>
</tr>
<tr>
<td>- Places where target audience has seen (or sees) health communications campaigns</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROMOTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Target Audience</td>
</tr>
<tr>
<td>- Promotional channels</td>
</tr>
<tr>
<td>- Messaging (Includes: Tone, direction and focus of messages)</td>
</tr>
<tr>
<td>- Campaign timeframe (campaign length)</td>
</tr>
<tr>
<td>- Message promotion timing (when to promoted)</td>
</tr>
<tr>
<td>- Message delivers or carriers</td>
</tr>
<tr>
<td>- Barriers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Core Products</strong>: Benefits of the desired health behavior (ex: Communicable Disease prevention)</td>
</tr>
<tr>
<td>- <strong>Actual Products</strong>: The health behavior itself (ex: hand washing)</td>
</tr>
<tr>
<td>- <strong>Augmented Products</strong>: Objects or services created to support behavior change (ex: hand washing stations, soap provisions)</td>
</tr>
</tbody>
</table>

**Figure 1. The 4 Ps**

*Product*

In Social Marketing, the term Product refers to the ultimate goal of the campaign or intervention. This is normally a specific behavior change such as hand washing adoption, or
condom use as examples. It is the acceptance of a new idea or belief with correlated lasting behavior change. (MacDonald, 2012)

There are three types of products:

- **Core product** - Benefits of a desired health behavior (ex: Communicable disease prevention or early chronic disease detection)

- **Actual product** – A particular health behavior (ex: Hand washing or condom use)

- **The augmented product** - Objects or services created to support behavior change (ex: hand washing stations, soap provisions, testing centers, material goods like condoms or clean needles) (Kotler and Lee, 2011)

Some products are easier to “sell” than others. For example, although hand washing is a fairly easy to learn behavior, access to soap and water can make the adoption of the behavior very difficult for some populations. (MacDonald, 2012) When designing a Social Marketing campaign, it is essential to identify a product, and the various components associated with it, so as to ensure that the tactics and messaging will correlate with the feasibility of the adoption of said behavior.

**Price**

Price is another essential component of the Marketing Mix. Price refers to costs that the target audience ensues in order to carry out the behavior. Price is always thought of in terms of the target audience, or consumer base. Price can be a monetary barrier such as the cost of buying a product or service, or it can be less tangible like loss of time, added emotional stress, or decreased pleasure. (Grier and Bryant, 2015) Ultimately, Price refers to what the target audience is either willing to, or not willing to, give up in order to carry out a health behavior. (Grier and Bryant, 2015)
**Place**

Place refers to channels and physical locations where the target audience carries out specific behaviors. Place also refers to areas where campaign messaging should be focused. Grier et. al discuss the importance of examining “life path points” or areas where the target audience frequents during everyday routine activities. The life point paths are ultimately essential locations to promote the Product. (Grier and Bryant, 2015)

**Promotion**

The last “P” in the Marketing Mix is Promotion. Promotion is usually the last step in the shaping the marketing scheme. Promotion entails various communication channels, key messages, messengers or message delivers, slogans and taglines and any other tactics used to communicate the Product, Price and Place components of the campaign. A well-executed communications plan will tactically utilize this final step to bring together the other three “Ps” to form an integrated strategy. (MacDonald, 2012)

**Implementation and Evaluation**

Once all of the essential components of the campaign’s strategy are finalized, marketers create an implementation and evaluation plan. The implementation plan outlines exactly how the campaign messages will be distributed based on the results of the Marketing Mix (where, when, how, to whom, with what barriers in mind etc.). After campaign roll out, it is essential to monitor outcomes and results. Results can be measured in a variety of ways. If the campaign is promoting condom use among teens, pre and post surveys may be valuable in tracking behavior adoption. If the campaign is based on promoting cervical cancer screenings, the evaluation plan may look at both the use of screening centers, and the prevalence of cervical cancer over time in the target population. These final steps in the planning process should not be overlooked. Implementation
is a critical component in whether the campaign succeeds or fails. Evaluation is also essential for measuring the success of the planning and implementation of strategies. A good evaluation plan can inform future campaign development.

2.5 Benefits of the Participatory Action Research (PAR) Approach

   At its core, the Participatory Action Research (PAR) approach aims to involve and empower groups of individuals to take active roles in the research process. In PAR, the participants are not merely research subjects, but active contributors. PAR is a collective process where researchers and participants mutually undertake the project. The researchers and participants aim to further understand behaviors and practices related to an issue or problem identified by the target audience itself. (Baum, 2006) Therefore, PAR ultimately aims to bridge the gap between researcher and participant to uncover authentic feelings, motivations and desires within a target population on a particular topic.

   Historically, scientific literature has shown positive correlations between community participation during intervention design and planning, and the success of said intervention within the community. Davis, a community psychologist, argued in 1982 that in order to ensure that the intervention “accurately reflects the local conditions and values,” researchers must involve the target population in the initial design phases through active participation. (Davis, 1982)

   In 2013, Lakhanpaul et al. used a collaboratively structured methodology in their development of a multifaceted health promotion program around asthma in a South Asian immigrant community in the United Kingdom. Through the use of collaborative workshops, research staff worked directly with the target population to develop an “iterative, phased approach” to their intervention design. Researchers engaged the participants in identifying key challenges and barriers to Asthma prevention in their community, and worked with them to
inform the design of a tailored program. (Lakhanpaul et al., 2014) The team saw tremendous success in engaging the community during this design and planning phase. They determined that “Engaging community members as collaborators is powerful on multiple levels…working with the community members to identify important issues and factors has the potential to improve a population’s participation and enthusiasm for a project, which can subsequently mobilize the community in addition to improving the effectiveness of the intervention.” (Lakhanpaul et al., 2014) The result of using PAR in this case was a program that reflected the target population and produced results desired by the group itself. Similarly, in the United States, researchers worked with youth to collaboratively design the “keepin’ it REAL Drug Resistance Strategies (DRS) curriculum.” Through the use of a PAR approach, researchers and participants created lessons, provided suggestions for supplemental activities and helped to produce educational videos around drug prevention. (Gosin, 2003) The curriculum was successful in reaching youth in various academic settings.

PAR can encourage target audiences to become active change agents, empowering them to identify problems in their communities and find attainable solutions. A PAR approach was also used in Tanzania to empower communities to reduce HIV transmission especially during ceremonial cultural practices around sex initiation. Participants and researchers openly discussed various factors contributing to the high rates of HIV transmission in the community. The results were used to create theater performances to educate and raise awareness among the rest of the community. The performances were culturally tailored and entertaining. This process was successful in reaching thousands of individuals in the community. It also led to changes in the cultural practices around sex initiation of young girls during traditional ceremonies. (Bagamoyo College, 2002)
2.6 Visualization of a Blended Approach: PAR and Social Marketing

Both PAR and Social Marketing rely on insights into the target audience or consumer base to create programs or campaigns capable of spurring sustainable behavior change. Social Marketing is a systematic approach that utilizes a sequential planning process, usually drawing insights into the target audience during the formative research and message testing phases of campaign development. In PAR, there is consistent involvement of participants throughout the entire development process; from problem identification to strategy development. (Ozanne, 2008) Although each approach engages the target audience or consumer base in different ways and at different times, both Social Marketing and PAR aim to create tailored, culturally relevant programs or campaigns. Therefore, there seems to be a natural synergy between applying a PAR approach to the Social Marketing campaign development process. This combined method may enhance both approaches, and ultimately provide even richer insights into the target audience.

This type of combined approach was effective in creating a Social Marketing campaign around youth empowerment in South Africa. Researchers engaged participants to create skits focused on HIV prevention, alcohol abuse and conflict resolution for their peers. Participants also helped researchers tailor a narrative based curriculum. Using a posttest-only control group field study, researchers found that the campaign elements, including the curriculum that had been developed using a PAR approach, were more effective in increasing knowledge about sex, alcohol, and conflict resolution among youth. (Hamby, 2011) Researchers concluded, “This direct involvement of the local community in developing the product and serving as the channel of distribution increases the likelihood that students from the community will attend to the message and modify their knowledge and attitudes in the targeted direction.” (Hamby, 2011) Although this study in particular does not fully engage youth throughout the entire campaign
development process (the curriculum was pre-developed but modified based on participatory responses) it has significant implications for future work in Social Marketing using PAR.

Figure 2. is a visualization of how the two approaches may be combined in practice. In a blended method, the Marketing Mix or 4Ps that make up the foundation of any Social Marketing campaign may emerge directly from the PAR process itself. Instead of conducting research before and after message and strategy development, key constructs of PAR, Observation, Reflection, and Planning between the participants and researchers, are woven throughout the campaign design and development process. This may ensure full engagement of the target audience in creating essential campaign elements or the 4Ps. Prior to data collection for this study, it was hypothesized that these two approaches could work together in a practical setting. This visualization represents how PAR a freer flowing, highly engaged approach could be combined with traditional social marketing development which is often more ordered with a rigid systematic processes. Further discussion and evaluation of this visualization are discussed later in 5.0 Discussion.
2.7 Purpose

This project is informed by previous work conducted in tandem with the University of Pittsburgh Graduate School of Public Health and SHARE India. Past work investigated maternal behaviors around sanitation practices such as hand washing, waste disposal, bathing, and breastfeeding and the connections to high rates of infant mortality in the region. Data collected by Pitt and SHARE researchers revealed an important trend among mothers in a small study sample. In 2013 while working with women living in villages inside of SHARE India catchment area, Pallatino and team concluded that mothers in their sample were not entirely aware of “the importance of their own health in the equation.” In general, mothers took great precautions to protect the health of their children but lacked awareness of the direct link between their health and the health of their children. (Pallatino, 2013) Additional findings from her research included the following insights:
• Women often knew what the healthy behaviors were, but at times lacked the knowledge of the connection to disease and the severity of an individual's susceptibility (both their susceptibility and the susceptibility of their child);

• Women appreciated social support in regards to discussing health and parenting with others mothers. Often women get support from their mothers or mother-in-laws but rarely their husbands; and

• Cues to action for women around healthy behaviors were slim due to a lack of health promotion campaigns in the area.

This research inspired a deeper investigation into various interventions to bridge the observed knowledge and awareness gap among the mothers in this area. It was concluded that a tailored, culturally relevant Social Marketing campaign might be the appropriate approach to reach women on a large scale.

3.0 METHODS

3.1 Setting

This work was carried out in partnership with SHARE India or Science Health Allied Research Education (SHARE) INDIA. SHARE is a non-profit research institute that is housed within MediCiti Institute of Medical Sciences (MIMS) and MediCiti Hospital. SHARE was founded in 1986 to serve hard to reach, rural populations outside of Hyderabad, one of India’s largest cities. SHARE is specifically located in the Ghanpur village, in the Medchal Mandal province of the Rangareddy District. SHARE’s catchment area includes 40 distinct villages with a population of over 50,000 (Reddy, 2012). Village size ranges between 60 and 3,000 people. These villages are considered rural in nature and face challenges with income and gender
inequality, disparities in access to healthcare and health information, and problems that arise from traditional cultural practices around open defecation and waste disposal.

To provide broader context, SHARE is located in the state of Telangana formally part of Andhra Pradesh but recently partitioned. In terms of the state’s health indicators, Telangana’s total infant mortality rate is just above the national average, at 46 deaths per 1,000 live births. (NIMS, 2012) When comparing it to other states, eight states have higher total infant mortality rates, the highest of which is 62 deaths per 1,000 live births for Madhya Pradesh. (NIMS, 2012) Therefore, although this key indicator puts the state in a more middle of the road category, maternal and child health remain a huge priority for the state. Over the years, SHARE has implemented numerous health promoting programs, and has played an integral role in decreasing their catchments area’s Infant Mortality Rate (IMR) to 38/1,000 live births (REACH, 2011) which falls well below the aforementioned state and national averages. With that said, there are tremendous opportunities to improve the health of the state’s youngest and most vulnerable population.

3.2 Population

This project took place in five villages located within SHARE India’s catchment area in Medchal Mandal. The study villages consisted of: Athvelly, Dabilpur, Gundla Pochampally, Somaram and Yadaram. The total population or all five villages is 13,025 with 49% of the population male, and 50% female. The village populations ranged from 726 people to 5,050 people. (REACH, 2014) The mean population between all five study villages was 2,605. (REACH, 2014) These villages ranged in terms of how rural or remote they were. Additionally, the villages covered a wide geographic area to provide variation among the study groups. In terms of religious breakdown within study populations, 89% of the population self-identified as
Hindu. Additionally, 9% identified as Muslim, 1.5% identified as Christian and 0.06% identified as other. In terms of Caste distinction, this area consists of a large population of individuals from the Scheduled (24%) and Backward (50%) Castes. Lastly, the education level in this area is fairly low where only 9.3% of women and 11.5% of men had completed Primary School, and 19.4% percent of women and 27.5% of men had completed high school at the time this data was collected (REACH, 2014)

Table 1. 2015 Population Demographics

| Study Villages: Athvelly, Dabilpur, Gundla Pochampally, Somaram, Yadaram (N=13,025) |
|---------------------------------|--------------------------------------------------|
| Gender:                         |                                                   |
| Male                            | 49% (6,467)                                      |
| Female                          | 50% (6,558)                                      |
| TOTAL:                          | 13,025                                           |
| Religion:                       |                                                   |
| Hindu                           | 89% (11,640)                                     |
| Christian                       | 1.5% (203)                                       |
| Muslim                          | 9% (1,173)                                       |
| Other                           | 0.06% (9)                                        |
| Caste:                          |                                                   |
| Backward Caste                  | 50% (6,551)                                      |
| Forward Caste                   | 13% (1,692)                                      |
| Scheduled Cast                  | 24% (3,154)                                      |
| Scheduled Tribes                | 1.4% (189)                                       |
| Other or Unknown                | 0.05% (63)                                       |
| Education Levels:               |                                                   |
| Primary School                  | 609 female (9.3%), 748 male (11.5%)              |
| High School                     | 1,269 female (19.4%), 1,806 male (27.5%)         |

(REACH, 2014)

**Sampling and Recruitment**

This project took place between June and August of 2015. During this time, five (5) focus groups were conducted among mothers aged 18-40 in rural Telangana, on the topic of co-creating a hand washing communications campaign using participatory methods. Convenience sampling was utilized to identify villages from different regions in Medchal Mandal. Five
Community Health Volunteers (CHV) aided in the recruitment of participants. Selection criterion included:

- Women between the ages of 18 and 40, married, living in Medchal Mandal, and not currently pregnant or in their first trimester;
- Women must have at least one child under the age of 5; and

The CHVs recruited between 9 and 11 participants for each Focus Group Discussion (FGD). The discussions were held over a period of one hour in local community centers and nursery schools also known as Anganwadi Centers or Gram Panchayats. Cookies and candy were provided to participants and their children in attendance.

### 3.3 Intervention

Upon reviewing previous research conducted in this area, it was apparent that further efforts were needed around increasing education and awareness on the connection between the health status of the mother and child. This project, looked to Social Marketing as a possible solution for bridging this gap in the target population. As later explained in the methodology section, this work examined the concept of carrying out a participatory approach to creating a tailored Social Marketing campaign with messaging created for mothers, by the mother.

### 3.4 Procedure

The FGDs were conducted in Telagu, the state language of Telangana by the moderator, a staff member of SHARE India. The moderator was well versed and experienced in FGD facilitation and familiar with maternal and child health issues. Recruitment was aided by 5 community health volunteers.

*Study Activities included:*

- Recruit participants from at least four (4) villages in Medchal Mandal to participate in four (4) focus groups;
• Conduct focus groups with mothers from (4) villages in Medchal Mandal. Mothers recruited to participate in focus groups will work together to brainstorm messages and intervention design concepts:

• Test messages and intervention design concepts in a workshop format with participants from target population (Example: Messages and concepts developed in groups 1 and 2 were tested in groups 3 and 4 through an iterative process)

• Analyze data using thematic coding process

3.5 Data Collection

The participants were assigned an identification number and wore a small badge pinned to their clothing as identification. All data collected was recorded using these numerical IDs. Demographic data collected included:

- Participants age
- Number of children
- Age at marriage
- Age at first child

Conversations were audio taped. Additionally, a note taker recorded hand written observations of observations on group body language, surroundings, participant seating arrangements etc.

3.5.1 Group Three Limitations

It is important to note that although five groups were conducted, one was quite short in length due to prolonged interruptions. Many women got up and left during the group to attend to their children and the moderator was unable to keep control of the discussion. The moderator concluded the group after twenty minutes of discussion. The conversation was still translated and
transcribed and participant demographic data was also collected. The results from the first twenty minutes of discussion were coded and included in the results, as well as the demographic information.

3.5.2 Institutional Review Board (IRB) Approvals

This project was subject to approval from both the University of Pittsburgh’s Institutional Review Board, and The Mediciti Ethics Committee in order to conduct research on human subjects in India. The project was submitted to the Mediciti Ethics Committee in Hyderabad, India and approved on April 16, 2015. It was approved by the Pitt IRB on May 29, 2015 (protocol #PRO15050011). Both approval letters can be found in Appendix 1.

3.6 Measures

As previously mentioned, this project conducted 5 focus groups in 5 different villages in Medchal Mandal. The discussions were framed in two parts. The first part was an exploratory and more general discussion about attitudes and feelings around health communications and Social Marketing. Questions in this section ranged from where participants had previously been exposed to health communications campaigns, to how those campaigns made the participants feel and whether they lead to direct behavior change. Additionally, this part of the discussion included questions on hand washing and its connection to maternal and child health, as well the connection between a mother’s health and her child’s wellbeing.

The second part of the session was a more active participatory discussion. Mothers were asked about their opinions and feelings on the development of a hypothetical Social Marketing campaign to increase hand washing among other mothers. Women provided input on the types of messages that should be developed, the tone and tenor of the messages, the placement of messages for promotion, suggested spokespeople or message deliverers and duration of
campaign needed to maximize impact among others. Sample questions from the moderators guide can be found below. The full Moderators’ Guide is located in Appendix 2.

For the first two groups, the sessions consisted exclusively of the aforementioned two parts or sections. After initial data was collected from the first two groups, an additional section was added to the Moderators’ Guide to include an iterative process for message and concept testing. In this third part of the discussion, mothers from groups three and four provided feedback and reactions to information collected in the first two groups. This process mirrored more traditional consumer orientated focus group testing.

Sample Questions from Moderators Guide

1. Provide brief overview of what is a health promotion communications campaign:
   - Large scale or small scale campaigns that include advertisements and activities about a health topic
   - Banners, posters or brochures that provide education or information on a health topic
   - Radio or TV ads that provide education or information on a health topic

2. Can you discuss some of the health promotion campaigns that you have seen your village or nearby?
   - Where and when did you see these health campaigns?
   - Did you see them on TV, on the radio, at the hospital, on a road sign or other places?
   - How long did you see these advertisements?
   - What kinds of health topics did the advertisements show?
   - Did these advertisements use a lot of text or pictures also?
   - How did the advertisements make you feel?
   - Did the advertisements you saw make you want to change your behavior and WHY?

3. What did you like or didn't like about the campaigns that you have seen?
   - Where there certain words or slogans that were used in these advertisements that you thought were good?
   - Did you like the tone of the advertisements? Where they funny? Where they scary? Where they sad? What examples of funny or scary or sad?
   - Did you prefer if the advertisements used text or visuals? What do you think works best to reach mothers like you? What were the text and visuals that you saw?

4. What do you think about the connection between mother's hand washing and her child's health. Do you think those are connected? Tell me how:
   - Do you wash your hands before your feed yourself or cook food for your self?
   - Why would you not be able to wash your hands before your feed yourself or after you use the toilet?
   - Do you seek medical care if you are sick? If you do not, what are the barriers to
- Who taught you that it is important to wash your hands?
- Do you see advertisements about washing your hands? Where did you see the advertisements about hand washing? What were they like and what did they say?

5. Can you think of a time when you were asked what your opinions or feelings about what kinds of programs would help to improve the health of your family and your neighbors?

3.7 Analysis

As previously stated, the FGDs were moderated by a member of SHARE India’s staff. The moderator was fluent in English and Telugu. All five groups were conducted exclusively in Telugu, the local language spoken in Medchal Mandal. Each FGD was tape recorded and then translated and transcribed verbatim by the moderator. Following the completion of transcription and translation, a codebook was developed to detect and organize data into themes. At its core, thematic analysis is used to organize information based on repeated patterns or themes identified across the entire set of data collected. Boyatzis argues that thematic coding organizes data to illuminate richer detail for analysis. (Boyatzis, 1998) In this case, 10 codes were established based on themes that appeared across all of the data. Microsoft Word was used to code and sort this data into various categories (or themes) later discussed in the Results section. Coding was verified by a second coder through consensus until thematic saturation was reached. There were very few discrepancies between coders.

4.0 RESULTS

4.1 Demographics

Forty-seven women participated in five focus groups held in the study villages selected in Medchal Mandal. Several pieces of demographic data were collected, de-identified and recorded. The mean age of participants was 26.09 with a range of 19-44 years of age. Two additional pieces of data related to age were collected: age at marriage and age at first childbirth. In the
sample of 47 women, the mean age at marriage was 18.6 with a range of 13-31 years of age, and
the mean age at first childbirth was 20.5 with a range of 15-31 years of age. Lastly, data was
collected on the number of children per participant. The mean number of number of children for
all 47 participants was 1.7, with a range of 1-3 children.

**Table 2. Participant Demographic Data**

<table>
<thead>
<tr>
<th>Demographic Factor (N=47)</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26.09</td>
<td>19-44</td>
</tr>
<tr>
<td>Number of Children</td>
<td>1.7</td>
<td>1-3</td>
</tr>
<tr>
<td>Age at marriage</td>
<td>18.6</td>
<td>13-31</td>
</tr>
<tr>
<td>Age at first childbirth</td>
<td>20.5</td>
<td>15-31</td>
</tr>
</tbody>
</table>

These pieces of demographic data were collected to provide context for the qualitative responses
recorded during the focus groups.

**4.2 Qualitative Results**

Based on the 10 established codes, responses from the Focus Group Discussions were
grouped into themes. In all five discussions, several themes emerged as critical to the health
communications campaign development process. Women most often expressed their opinions on
the following themes: The importance of place in terms of where campaign messages are
promoted, the outlets used to promote campaign messages, the importance of who delivers the
message or serves as a spokesperson, and barriers preventing women from adopting hand
washing or other health behaviors.

The central themes are further discussed below. Each discussion contains direct quotes
from the FGDs. As previously mentioned, data was de-identified and recorded. This means that
the quotes below are neither identified by the participant who provided them, nor are they
classified by which focus group they emerged in.

4.2.1 Theme 1: The importance of where campaign messages are promoted

In all five discussions, participants spent significant amounts of time discussing the
importance of where a health communications campaign is promoted or advertized. During the
discussions, participants debated several strategies for determining the best place to hang
banners, distribute campaign materials like brochures or pamphlets, and hold informational
meetings or promotional events to publicize hand washing campaign.

The majority of participants discussed the same locations as crucial targets for any
campaign marketing or promotion. These included areas with high traffic, or locations where
they and their peers frequent often. One woman in particular nicely summed up the most popular
sentiment among women in all groups. She said:

_We should place the banners near bus stops, schools, hospitals and shops. Many
centers where people move around._

It is important to note that many women mentioned that they rarely leave the house except to run
important errands. Therefore they discussed the importance of placing advertisements in high
traffic areas where there was a higher likelihood for message penetration into target audience.

Some women also discussed areas to avoid in terms of promoting a campaign, using
similar reasoning. In addition to placing advertisements in high traffic areas, the campaign
should also avoid areas with low traffic. One woman described that because few women visit the
doctor on a regular basis, it would be disadvantageous to advertise or promote a campaign at a
healthcare center of facility:

_Few people go to the doctor often. So only few would be able to read. So mainly
the banners should be placed in public places, outside in the streets, not in rooms._
Additionally, a few women mentioned the importance of placing advertisements in areas where women have time to actually view them and take in the message. This was often discussed in the context of places where women spend the longest duration of time when they do leave the village. One participant provided a quote that exemplified the importance of promoting the campaign in areas where the target audience has ample time to engage with, and fully digest, the messaging. She said:

*Even we can fix a bank its good because when we go to the bank we have time. They give us numbers, at that time we go draw the amount so meanwhile we have a lot of time. At least time to read a poster, what all are fixed on the walls.*

Finally, several participants discussed the importance of expanding the target audience for a health communications campaign aimed to increase hand washing to include men and fathers. A theme emerged in several discussions about targeting men in the campaign. Women mentioned that because men are the heads of the household, establishing behavior change with them is crucial for setting an example for the rest of the family. Two specific places were mentioned as critical locations to reach men; the Grampanchayat centers (community centers located inside the village) and liquor shops. Several participants echoed these sentiments. Two women said:

*If we fix posters and banners in the Grampanchayat male persons are able to read too.*

*Liquor shops because men like to go to take liquor so they will read.*

Before speaking with the women, the target audience was confined to mothers only. The discussions illuminated the importance of expanding this to maximize the reach of the campaign.

### 4.2.2 Theme 2: Outlets for promoting campaign messages

Not only was the location for message promotion incredibly important to participants, they also thoroughly discussed the different types of outlets that messages need to be packaged
within. The location and the outlet are directly related because without the proper outlet, *where* a message is promoted is irrelevant. For example, participants discussed the importance of hanging banners in public places with high traffic. The banner in this case is the outlet and the public place with high traffic is the location. These two campaign components need to work in synergy to maximize the impact within the target population. If the banner hanging in the ideal location isn’t an appropriate outlet for message promotion for example, the fact that it is in that location becomes insignificant.

An important theme that emerged among participants was the importance of television as an outlet for message promotion. This suggestion falls in line with other discussions that suggested that many women often stay within close proximity to the home during the day. The majority of participants agreed that the best outlet to use to reach women while they are in the home is the television. Several women provided the following rational:

*Through the TV, they show presentations on how we should be, what the precaution we should take to avoid certain health issue like that. If they just say orally we don’t take much interest in hearing. But if you show practically (visually), with demonstrations, it is more effective. If it is on TV, everyone can watch and be able to understand*

*Most of them (women) watch TV in the evening. Mostly they watch socials at the time. In between if we show the ads that would be good.*

*We see programs on TV from 2:00pm where doctors telecast health advice.*

*Daily on TV, there are a few health related programs that come on TV at 3:00pm.*

*Mostly we like to watch the information about nutrition because it is on TV. We get a program on cooking so the nutritionist will explain which vegetables contain which type of proteins, nutrition values like that.*

In addition to TV, women also argued the importance of banners or posters as outlets for message promotion. As previously mentioned, participants agreed that banners and posters should be placed in high traffic areas both in and outside the village. The majority of women
provided specific details on how printed materials should be designed. The clarity and succinctness of the message was their number one priority. Secondly, they argued that it was essential for any print material to contain both text and pictures to appeal to those individuals with low literacy levels. One woman articulated this:

*The posters should be understandable like with pictures we should be able to understand and should have text in the posters and banners like so people who can read will try to read and understand. Those who are not able to read and understand at least there will be pictures for them to understand.*

A few women also discussed that brochures or other handouts are often neglected or ignored. They used this as an example to further justify the importance of banners and posters. One woman said:

*Some people will take the brochures but they don’t read. Banners with pictures that are fixed in the village walls are better.*

Two unique suggestions for promotional outlets come from several groups. The first was the mention of message placement on related products like bars of soap and liquid hand sanitizer. One woman described how messaging about the importance of hand washing is written on the soap packaging:

*Nowadays, there is advertisement on soap. With that in a few seconds you can wash your hands (promoting liquid soap).*

Several women also agreed that including the messages on the product needed to carry out the hand washing behavior itself, was an effective and innovative technique to increase awareness and education.

Another interesting outlet discussed in several groups was stage shows or theatrical performances. Theater, music and dance play important roles in Indian culture. It was interesting that many women discussed using this creative form of expression to convey health messaging. They mentioned that not only are stage shows fun and can show practical demonstrations on how
to properly wash hands, but they can reach a large number of people at opportune times of the
day. Two women discussed this outlet:

*Stage shows are also good. Stage programs are more effective because they show
practicality and easy to understand.*

*Say that even if they do stage shows it is also good because in the evening if they
conduct such programs people like to watch stage shows in the evening and show
visuals like that.*

Overall, the participants provided rich data on the types of outlets they deemed important for
message promotion. The discussion around this topic were lively and revealed unique and
interesting insights.

4.2.3 Theme 3: The importance of who delivers campaign messages

Currently, Indian media is saturated with celebrity spokespeople selling a variety of
products and services. Banners and posters across the country contain glamorized portrayals of
the country’s rich and famous. This cultural phenomenon of celebrity, and the public marketing
of the glitzy life of India’s rich and famous inspired several discussion questions.

Not only is the health message and the outlet used to promote it important, but who
delivers the message seems to also matter to the target audience. Issues of trust and assurance
arose during lively discussions on campaign spokespeople. The opinions on the use of celebrities
versus medical professionals like doctors were nearly split down the middle between study
groups. Additionally, some participants argued that the most trusted source of health information
was from elders and peers and not strangers.

Many participants made the argument for using a celebrity to promote a health messages.
Justifications varied among groups. Opinions from several participants are listed below:

*If there is a banner with a doctor’s picture no one cares but when we see a
celebrity picture on a banner people will be attracted to it, and stand for a while
and read what the celebrity is talking about.*
A celebrity it is more effective to promote the campaign because if a doctor comes and says the information no one pays attention and very few even know if he is a real doctor. Whereas with a celebrity, everyone knows them and people like them for their performances.

People have a kind of impression of celebrities. They think that whatever a celebrity is adopting they should also follow. So in our village if celebrities give information it is more effective.

One participant provided a unique justification for using a celebrity as a campaign spokesperson. She discussed how different education levels within the target population lead to different levels of trust among the target population.

Another thing is that those who are well educated, or a good knowledgeable person, knows the importance of a doctor but uneducated people are more attracted to celebrities and like to change their behaviors based on what they do. They think that if a celebrity is doing it, why can’t they adopt the change in the behaviors like them.

This participant argued an important notion about that lack of homogeneity within a target population. Messages within the camping need to appeal to a target audience consisting of individuals with varying health education levels and awareness.

On the other side of the argument were those participants who thought a doctor was a better choice to serve as spokesperson for a hand washing campaign. The argument against a celebrity was at times based on the fact that film stars and musicians are too distracting and the target population would look past the campaign messaging. Another argument was that doctors are more relatable and therefore trust worthy. Various arguments to use a doctor as a spokesperson from several participants include:

If the doctor tell the information it is more effective where as if the film star says, seeing them is excitement rather than listening to the information.

Film stars and celebrities are rich people and people don’t understand the information of normal people.
The doctor has good opinion and the doctor is the correct person for health information and people also obey him.

Some women even argued that a successful campaign should utilize both doctors and celebrities in the promotional materials.

It should be both doctors and celebrities because though doctors give information, the celebrity should say the same thing.

When we conduct any type of awareness program, both the doctor and celebrities should be a part of it.

Women discussed the importance of harnessing the impact that doctors and celebrities have on spurring behavior change in a target population. Participants in all five groups discussed the role that these figures can play in health education and behavior adoption.

4.2.4 Theme 4: Barriers preventing women from adopting behaviors promoted by campaign messaging

The final theme discussed by participants was on the types of barriers that the target population face in trying to adopt health behaviors. Some of these behaviors have to do with the campaigns themselves and the way that messages are marketed, where others have to do with the target populations’ ability to reasonably take on a new behavior. Understanding these barriers to behavior adoption is critical for campaign development. The campaign must take into consideration the obstacles the target population face and thus market in a way that lowers these barriers with feasible solutions for realistic behavior change. Several women articulated barriers to both carrying out hand washing, and also barriers to understanding campaign messaging trying to promote said behavior.

Literacy levels play an integral role in the comprehension of campaign messaging among the target population. Many participants argued that literacy levels play a vital role in whether campaign messages even reach the target population. Two women voiced their concerns about
addressing these barriers during the design and creation phases of campaign materials like posters and banners. They said:

*The posters should be understandable with pictures so we are able to understand. They should also have text in the posters and banners so people who can read will try to read and understand and those who are not able to read and understand at least will have pictures for them to understand.*

*Those who are educated will read what is written on the banners and those who are uneducated will just see and try to understand. They don’t ask anyone for help.*

These two quotations exemplify why it is so important to design campaign materials with the target population in mind. These women felt strongly about the advertisements appealing to a broad spectrum of educated and non-educated individuals.

Another barrier that came up in discussions was about time constraints for both absorbing campaign advertisement, and actually carrying out the promoted behavioral change. Several women discussed this theme below:

*In our village, mostly all are working and they don’t have time to attend a meeting. So if we fix posters and banners at least they read while they are going and coming home.*

*Evening time is more convenient even those who go for work are also available in the evenings.*

*Yes because those who are working don’t ever get to see them (advertisements) on TV so that is the reason. The advertisements should be both on TV and on banners and posters.*

*For example, suppose if the doctor say about cholesterol and if he tell that with certain thing we can reduce cholesterol then we follow like we do walking everyday, eat less oily food like that. It means we try to implement in your life. Few we will follow and few we will not follow because we don’t have time to follow the doctor’s advice.*

Lastly, women in the focus groups also discussed the challenge of sustained or long-term behavior change. They mentioned that in the past, they have seen health communications
campaigns, changed their behavior for a short amount of time and then resorted back to old behaviors. A successful campaign would need to market its messages in a way that would help promote long-term behavior change. One woman articulated this below:

\[\text{When we see the banner at the time we feel and follow for a few days and again become careless.}\]

Another participant mentioned that the length of time a campaign runs in the public could affect this type of sustained behavior change. She said:

\[\text{If we do it just for 1-2 months people will think that they should just do it for 1-2 months and leave. So if we do all time, it reminds that they should do it till its habit.}\]

One woman brought up a unique suggestion to aid in sustainable behavior change. She felt that messages needed to be constantly promoted so as to effect future generations of parents. She said:

\[\text{There should be no end because every time a new generation comes and can see this If we show the advertisement 1 year we can give information to the new generation so the advertisements should be continue with new ideas. This way new married couples will know. Another thing is in some houses elderly could guide new couples. But if they don't have elderly in the home they will make mistakes so for that reason the advertisement should be continuous.}\]

She mentioned that a health promotion campaign is essential for those mothers and fathers who may not have elders to teach them health behaviors. This participant mentioned that the campaign should have “new” or fresh ideas and be promoted on continuum.

\textbf{4.2.5 Slogans and taglines}

During the Focus Groups, data was also collected on proposed slogans or taglines for the hand washing campaign. This was the most challenging part of the focus group discussions. In some groups, participants were eager to provide suggestions, where as in other groups, the women were hesitant to come up with, and share their ideas. These taglines and slogans were
often interjected throughout the second part of the FGDs. Some women even came up with suggestions during the moderator’s concluding remarks. Below is a selection of four unique taglines brainstormed by the participants across all five groups.

- “Keep hands clean and stay away from sickness”
- “Cleaning hands is God’s protection”
- “Our health is in our hands”
- “Clean your hands properly and avoid diseases”

4.3 Iterative Concept Testing

For the initial two focus groups, data was collected on all of the proposed suggestions for various campaign elements such as where the campaign should be promoted, outlets used, time period for promotion utilized, and tone of messages etc. Additionally, all suggested messages and slogans or taglines from groups one and two were translated and recorded. For the second two groups, an additional section was added to the Moderator’s Guide to include concept testing. After groups three and four finished their own brainstorming, the moderator presented the findings from groups one and two for comment. The excerpt from the moderators guide used in groups three and four is below (also found in Appendix 2).
D. Message and Concept Testing (For groups #3 and #4)

Thank you for all of your responses. Before we met with you, we also talked with mothers in other villages near here. They also answered our questions and gave us useful information on this topic. We are very thankful for all of the input.

At this time, we would like to share with you some of the ideas that the previous groups came up with so that you can tell us what you think.

PRESENT ANSWERS FROM ACTIVITIES SECTION FROM GROUPS #1 and #2

1. Would the messages inspire you to change your behavior?
2. How do the messages make you feel?
3. Do you like these messages? Can you relate to these messages in terms of culture?
4. What would you add to the concepts and messages? Would you remove anything?
5. Would the outlets described to promote the messages be effective in reaching you and your peers?

Overall, in both groups four and five, participants agreed with ideas generated in the previous two groups. The women often articulated that the campaign concepts generated by other women would in fact motivate them to change their own behaviors if used in a real campaign. There was no disagreement between groups after hearing perspectives from other villages. Alternatively, hearing ideas from other women often spurred more ideas within the group.

4.4 Organizing Results within a Social Marketing Framework

During the qualitative analysis process, various themes were identified. Upon further analysis, there was a natural emergence of core Social Marketing campaign components. Participants provided suggestions for various campaign concepts within the same framework that is commonly used by Social Marketing professionals. Their suggestions for where, when and how a campaign should be carried out generally mapped on to the Marketing Mix and 4Ps. For example, various Place factors were represented among participant responses. Women mentioned the importance of promoting campaign messaging at locations such as bus stops,
ration shops and temples among others. Many participants also brought up tactics that would fall under the rubric for Promotion. Women mentioned television and stage shows as outlets to promote campaign messaging. Participants also discussed Price factors, or costs or barriers to adopting hand washing behaviors and avoiding disease. These included time and financial constraints and an unwillingness to abandon traditional customs.

Below, the data has been organized within this context. The left column contains the definition of each “P” from earlier in this report. The right column contains the results obtained from the discussions with participants.

**Table 3. Results: The Natural Emergence of the Marketing Mix of 4 Ps**

<table>
<thead>
<tr>
<th>Marketing Mix Component</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
<td></td>
</tr>
<tr>
<td>Includes discussion on:</td>
<td></td>
</tr>
<tr>
<td>- <strong>Core Products:</strong> Benefits of the desired health behavior (ex: Communicable Disease prevention)</td>
<td></td>
</tr>
<tr>
<td>- <strong>Actual Products:</strong> The health behavior itself (ex: hand washing)</td>
<td></td>
</tr>
<tr>
<td>- <strong>Augmented Products:</strong> Objects or services created to support behavior change (ex: hand washing stations, soap provisions)</td>
<td></td>
</tr>
<tr>
<td><strong>Core Products:</strong></td>
<td></td>
</tr>
<tr>
<td>- Avoid Disease/infections</td>
<td></td>
</tr>
<tr>
<td>- Avoid Fever</td>
<td></td>
</tr>
<tr>
<td>- Avoid Vomiting</td>
<td></td>
</tr>
<tr>
<td><strong>Actual Products:</strong></td>
<td></td>
</tr>
<tr>
<td>- Hand washing before eating</td>
<td></td>
</tr>
<tr>
<td>- Hand washing after bathroom use</td>
<td></td>
</tr>
<tr>
<td>- Hand washing before cooking/or feeding a child</td>
<td></td>
</tr>
<tr>
<td>- Clean surroundings</td>
<td></td>
</tr>
<tr>
<td>- Nail cutting</td>
<td></td>
</tr>
<tr>
<td>- Bathing</td>
<td></td>
</tr>
<tr>
<td><strong>Augmented products:</strong></td>
<td></td>
</tr>
<tr>
<td>- Soap</td>
<td></td>
</tr>
<tr>
<td>- Liquid hand sanitizers</td>
<td></td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td><strong>Includes discussion on:</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>-</td>
<td>What does the audience give up to carry out hand washing or other health behaviors (example: money to pay for soap; time to go to the doctor; time/money to miss work for a health related activity)</td>
</tr>
<tr>
<td>-</td>
<td>Costs or barriers to making a health behavior change. (example: loss of time, decrease in pleasure, loss of self-esteem, loss of respect from peers, lack of access, or embarrassment)</td>
</tr>
<tr>
<td>-</td>
<td>Time constraints to carry out health behaviors</td>
</tr>
<tr>
<td>-</td>
<td>Financial constraints to carry out health behaviors</td>
</tr>
<tr>
<td>-</td>
<td>Not willing to abandon traditional healing techniques</td>
</tr>
<tr>
<td>-</td>
<td>Work obligations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Place</strong></th>
<th><strong>Includes discussion on:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Where the target audience is located or gathers (physical locations or spaces); and/or where target audience is thinking or hearing about health information</td>
</tr>
<tr>
<td>-</td>
<td>Where the target audience accesses products or services related to health behaviors</td>
</tr>
<tr>
<td>-</td>
<td>Places where target audience has seen (or sees) health communications campaigns</td>
</tr>
<tr>
<td>-</td>
<td>Bus stops</td>
</tr>
<tr>
<td>-</td>
<td>Anganwadi centers</td>
</tr>
<tr>
<td>-</td>
<td>Schools</td>
</tr>
<tr>
<td>-</td>
<td>Hospitals and doctor’s offices</td>
</tr>
<tr>
<td>-</td>
<td>Ration shops</td>
</tr>
<tr>
<td>-</td>
<td>Liquor shops</td>
</tr>
<tr>
<td>-</td>
<td>Grampanchayat centers</td>
</tr>
<tr>
<td>-</td>
<td>Hindu Temples</td>
</tr>
<tr>
<td>-</td>
<td>In auto-rickshaws</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Promotion</strong></th>
<th><strong>Includes discussion on:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Target Audience</td>
</tr>
<tr>
<td>-</td>
<td>Promotional channels</td>
</tr>
<tr>
<td>-</td>
<td>Messaging (Includes: Tone, direction and focus of messages)</td>
</tr>
<tr>
<td>-</td>
<td>Campaign timeframe (how long camping should last to maximize impact)</td>
</tr>
<tr>
<td>-</td>
<td>Message promotion timing (when messages should be promoted)</td>
</tr>
<tr>
<td>-</td>
<td>Message delivers or carriers</td>
</tr>
<tr>
<td>-</td>
<td>Barriers</td>
</tr>
<tr>
<td>-</td>
<td>Target audience:</td>
</tr>
<tr>
<td>-</td>
<td>Mothers</td>
</tr>
<tr>
<td>-</td>
<td>Pregnant women</td>
</tr>
<tr>
<td>-</td>
<td>Elders</td>
</tr>
<tr>
<td>-</td>
<td>Fathers</td>
</tr>
<tr>
<td>-</td>
<td>(NOTE: No discussion on targeting children)</td>
</tr>
</tbody>
</table>

**Promotional channels:**
- TV
- Stage Shows
- Song
- Product packaging (soap packaging)
- Town hall meetings
- Health camps
- Brochures
- Banners and Posters

**Messaging:**
- Clear and concise language in messages/slogans
- Serious and dignified messages/slogans
- Descriptive and demonstrative (practical advice)
- Spiritual/ religious encouragement in messages/slogans
### Table 3. Continued

<table>
<thead>
<tr>
<th>(Promotion continued)</th>
</tr>
</thead>
</table>

- Messages portrayed with pictures/photos as well as text
- Colorful and eye grabbing

**Campaign timeframe:**
- 1-2 months
- 2-3 months
- 3-4 months
- Everyday; always

**Message promotion timing:**
- 2:00pm-3:00pm on National public TV channels
- Evenings for stage shows and programming

**Message delivers or carriers:**
- Celebrities
- Elders
- Doctors
- Government Sisters (nurses and community health workers)
- Peers

**Barriers to understanding messaging:**
- Literacy and education levels
- Messages are not promoted where the target audience lives/works/travels

### 5.0 DISCUSSION

#### 5.1 Restatement of Main Findings

Creating lasting and sustainable behavior change in a population is complicated, usually requiring years of committed efforts at the individual, community and systems levels. The insights provided during these focus groups further highlight the importance of creating health promotion campaigns that include relatable and achievable suggestions for behavior change, tailored to the consumer base. Social Marketing can be a powerful tool for this kind of targeted health promotion. Traditionally, marketers utilize audience insights during the formative research and message testing phases of campaign development. This research highlights an approach that uses core components of participatory research throughout this entire campaign development.
process. Using PAR allowed group members to brainstorm key components of a campaign in an engaged and conversational way.

Findings from this study’s FGDs revealed that this blended approach to increase participant engagement in the co-creation of a Social Marketing campaign does in fact produce insightful observations and suggestions.

5.2 Comparison with Previous Research

Previous work has used PAR and Social Marketing approaches independently to develop effective health promotion campaigns in various populations around the world. These approaches have engaged participants in unique ways, often resulting in data later used in intervention development.

These results suggest consistency with previous research in that participants engaged in a method that blended the PAR and Social Marketing approaches to provide insights into their feelings and attitudes around hand washing communications. Furthermore, this unique approach produced qualitative data that provided a richer context to pre-existing quantitative data on women in the study location, Medchal Mandal. For example, upon an initial review of secondary data on the target population in this area, mothers appeared to be the most important group to target due to a lack of awareness around the connection between maternal hygiene and the health of a child. (Pallatino, 2013) In these FGDs, participants did in fact discuss various promotional outlets related to mothers in their peer group, the original target audience for the program. Interestingly though, as discussions unfolded, several women discussed locations that would be appropriate to advertise to men as well. Some of these areas included Liquor shops due to high rates of drinking among men in the area. Additionally, women mentioned that men are the most influential figures in their children’s lives when it comes to health behaviors. These valuable
insights allude to the potential of adding a secondary target audience for a hand washing campaign within this population. Without the participatory reflections provided during the discussions, this type of insight may have been overlooked during campaign development.

Another example where qualitative data was in ways contrary to preexisting data was in terms of pre-natal care and institutional births. Previous research conducted at SHARE showed high levels of institutional births and pre-natal checkups among women. This may lead researchers to believe that the women in SHARE’s catchment area are health seeking with access to healthcare. Data collected between 2001-2009 even showed that the number of births in healthcare institutions increased by 17 percent in this area. (Kusneniwar et al., 2011) With that said however, in this study’s qualitative discussions, several women discussed how women rarely go to healthcare facilities or doctors offices outside of childbirth, and usually rely on home remedies and traditional healing first. This is relevant because in developing a Social Marketing campaign using traditional development techniques, utilizing preliminary formative research or secondary data, marketers may have concluded that promotional materials should most certainly be placed in hospitals and healthcare settings. The qualitative data collected in this study however revealed that in addition to healthcare settings, marketers might focus promotion in other places, and not emphasize healthcare settings over other locations. This is an interesting example of how the blended method produced additional data to inform Place, an essential component of a campaign’s Marketing Mix.

Taking this finding into consideration, it is important to acknowledge other reasons for uncovering contrary qualitative data unattributed to the blended approach employed in this study. It is unclear whether the additional context provided by the women on healthcare usage directly resulted from this unique hybrid of PAR and Social Marketing campaign development processes,
or whether it was merely the result of the qualitative data collection process more broadly. In other words, could researchers have uncovered these unique insights on Place using any form of qualitative research? Future work will be needed to uncover whether this blending uncovers data unique to this approach versus other qualitative research methodologies. Ultimately, this data supports the development of highly tailored communications campaigns with promise for behavior change. Next, researchers may want to test the efficacy of this blended approach to inform a campaign that is in fact capable of moving the needle on behavior change.

5.3 Implications for Intervention Translation: Campaigns Are Not One Size Fits All

After analyzing and organizing the data, several implications for intervention translation come to light. These results suggest what a creative interpretation of an ideal hand washing campaign created by mothers, for mothers may look like. These results are exciting because they are authentic representations of what the women would like to see in a campaign, and what they believe would motivate their peers to increase hand washing. What is challenging is the feasibility of creating campaigns that satisfy multiple wants and desires of participants. Practitioners may face challenges in synthesizing data for practical application due to these conflicting feelings. An example of this is the data collected around an ideal spokesperson. Many women in this sample argued that a doctor is the best choice for spokesperson. These women felt that doctors were trusted experts who they could rely on to provide sound advice. Contrary, other women argued that it is difficult to trust whether the campaign spokesperson is in fact a real doctor and not an actor. These women often argued that celebrities are better suited to spread health massages because people recognize them from daily media consumption and respect them. In this same discussion though, some women said that celebrities are not relatable and
could not understand the struggles that poor people face. From these responses, it is clear that satisfying multiple opinions in one campaign is highly unlikely. In a 2003 study on the impact of a celebrity driven health promotion campaign in the United States, results suggested that the use of a celebrity spokesperson increases public participation in health promoting activities. Cram et. al found that using Katie Couric, a notable newscaster, as a celebrity spokesperson for colon cancer screening, increased screening efforts among the public. Authors called this phenomenon the “Katie Couric Effect.” (Cram et. al, 2003) With that said, it would be important to take these conflicting data points and further research the potential efficacy of using a notable spokesperson to promote health, and thus capitalizing on India’s celebrity obsessed culture.

This example is only one of many instances where participants brought up contradictory ideas and opinions. This data shows that not all health communications campaigns are one size fits all. Moving forward, researchers may want to look into advanced audience segmentation to produce multiple versions of the same campaign. In general, the opinions differed across study villages but not within the group of participants. These distinctions allude to geographic variability across villages. This shows that in developing campaigns, promotional messaging and tactics may need to be unique to small populations.

5.3.1 Other creative applications for data: Unconventional promotion tactics

This blended approach to campaign development may have broader implications for global implementation. In India in particular though, there may be some unique tactics for message promotion due to the country’s rapid development, influx of technology, and prominent mass media and celebrity presence. It may be valuable to use this participatory approach to discover interesting outlets for promotion that may be less conventional or obvious. For example, an observation recorded during all five focus groups was the presence of mobile phones among
participants. Even in the most remote village studied, all of the participants had mobile devices. In a 2009 literature review, Fjeldsoe et. al discuss the effectiveness of delivering behavior change intervention messaging via Short Message Service (SMS) texting programs. The review concluded that SMS delivered messaging may have significant short-term behavioral outcomes and cites several global applications. (Fjeldsoe et. al, 2009) Because SMS texting programs have been successful in encouraging behavior change, it may be advantageous to ask participants in India more about their mobile use and the potential efficacy of distributing hand washing messaging via text moving forward.

Another unconventional tactic may be to create videos and promote them via YouTube or by installing small screens to play in public places. This tactic is unique to TV because it could target individuals while outside the home, and provide visuals. Additionally, future studies could further discuss the role of product placement and corporate marketing, an idea briefly touched on in these FGDs. It would be interesting to hear what other kinds of products could be used to market health messaging.

Moving forward with testing the validity and feasibility of this blended method, it may be interesting to study how researchers could capture ideas on unique promotional tactics or methods. Ultimately, research methods will have to adapt to India’ rapidly changing technological landscape.

5.4 Theoretical Implications: Evaluating the Blended Visualization

There are several theoretical implications for blending methods associated with PAR and Social Marketing. This study proposed a visualization for blending the PAR approach with Social Marketing campaign development processes. In the current model, key tenants of the PAR approach, observation, reflection and planning lead to the uncovering of the Marketing Mix or 4
Ps, the foundation of any Social Marketing campaign. In this model, the PAR approach led to a more organic discussion of the Marketing mix or 4Ps where women proposed campaign elements in no particular order and would frequently discuss promotional elements first. The blended model therefore lends to a more fluid campaign development process. In contrast, in traditional Social Marketing campaign development, the Marketing Mix or 4Ps are normally developed in a formulaic and systematic fashion. Traditionally, marketers develop a campaign by first identifying the product (or desired behavioral outcome) then examining Price and Place elements to inform the Promotional strategy. Participants in these FGDs discussed various campaign elements as they were inspired by the discussion, with no specific ordering. This model therefore allows for a truly participant driven discussion, which may in fact improve creative outcomes. With that said however, the model does not fully address the temporal distribution of key components of the approach. It is not clear whether using this more fluid approach to campaign creation is beneficial, ultimately leading to a stronger and more effective campaign. In addition to the placement of the 4Ps and their relationship to the three key features of PAR, the model does not show clear directionality. In other words, is it necessary to repeat the entire process after the campaign has been developed to test it within the target audience in the same engaged way? Further investigation may be needed to move the visualization of the blended approach applied to this project to a conceptual model with broader application.

5.5 Implications for Future Research

This study has several implications for future research. These FGDs were conducted among rural women living in small villages outside one of India’s largest capital cities. Future research could test this blended approach with urban populations or very isolated tribal groups for example. Suggested promotional tactics will likely differ among different populations due to
varying degrees of influence from mass media, pop culture and politics. Additionally, it would be important to apply this approach in a population that may not be as familiar or intertwined with a research institute. This study population has been familiar with research due to its ongoing involvement with SHARE. It is unclear what kind of direct influence this may have had on participant responses but it would be interesting to see what groups who are not as affiliated with a research institute contribute.

5.5.1 Using the model with other populations

An interesting idea for future investigation is the applicability of this blended approach in unique settings. For example, it may be interesting to see if this model has application with business leaders or policy setters. Due to the fact that much of the public health agenda setting is done at this higher level, it could be interesting to study what kinds of campaigns could influence leaders of businesses and organizations involved in Corporate Social Responsibility (CSR) for example. Lifebuoy, a brand of soap marketed by Unilever, one of the world’s largest companies, is committed to promoting hand washing in countries like India. Lifebuoy’s CSR work has been incredibly successful in spurring behavior change. To date, the company has used its corporate reach to increase awareness and education among millions of people living in the developing world. This commitment is a testament to the brand’s vision for not only selling its products, but for igniting social change among its consumer base. (Unilever, 2012) Not all companies are as dedicated to this notion of CSR however. Therefore, it may be interesting to hold FGDs with decision makers to develop campaigns aimed to encourage other leaders to change their behaviors around resource allocation. Using this kind of insider knowledge and insight, campaigns could be developed to encourage alleviating various public health challenges through corporate engagement. Just as this study looked to engage mothers, future work could in the
same manner encourage leaders to create campaigns aimed at reaching their peers. Future research could therefore assess whether it is feasible to apply this approach more broadly.

5.5.2 Changes to future research protocol

Future work may want to focus on increasing engagement between researchers and participants. Although SHARE provided an excellent introduction to local communities, future research could explore dedicating more time to forming relationships between researchers and participants. To do so, researchers may want to engage in community activities or celebrations to form more personal connections with community members. This increased engagement may lead to greater comfort and willingness to share among participants. In a 1990 landmark study on community needs assessment and diagnosis, Eng and Blanchard discuss the importance of finding inroads to community to further engage with participants. (Eng and Blanchard, 1990) Their study focused on the importance of relationship building over a significant period of time within their study population. Results revealed that in order to collect the richest and most informative data, researchers had to be highly engaged with many members of the community, not just those individuals who served as their initial contacts. Because this process of relationship building is so essential to collecting authentic and useful data, future investigators may want to start from the initial contact phase and spend ample time building unique and novel relationships with participants. It is important to note that although the relationship with SHARE was a strength because it provided beneficial inroads into the community and established trust, it may have also influenced participant responses. It was undoubtedly though an excellent place to start the initial investigation of applying this blended model due to time and resource constraints. Also, because there was only time to conduct one FGD in each village, moving forward it may be beneficial to have more than one conversation with each study sample. Additionally, this may
help with the brainstorming process. Many women seemed to require additional time to process ideas and come up with suggestions. It may be helpful for women to be prompted in the first discussion and then have time independently to think of ideas.

5.6 Limitations

5.6.1 Sampling and Selection Error

Convenience sampling was used in this study. As previously mentioned in the procedure section, Study villages were chosen based on geographic variability and the availability of a Community Health Worker in the desired villages to aid in the recruitment process as well as the FGD facilitation. Therefore, even though researchers attempted to choose study villages across the entire Medchal Mandal region, the need for a CHV to aid in recruitment plaid a role in the selection process thus creating a selection bias based on convenience and availability.

As previously mentioned, five groups were undertaken however only four were completed in their entirety. This was due to disruptions during the group among participants and their children. This type of disruption existed in all five groups but was most severe in the third group that was ultimately halted. The fact that almost all FGD participants had their small children with them during the discussion likely also influenced the responses. Women at times seemed distracted by their children, and may engaged in breast feeding during the groups discussion.

5.6.2 Social Desirability Bias and Conformity

Inherent in most FGDs, is response bias or issues with conformity among participants. This is often due to the fact that participants are answering questions in front of one another. In this study, women may have felt that they needed to agree with their peers, or withhold their real opinions due to a fear of judgment. At times, the note-taker recorded that women tended to look
around at one another before speaking. This type of body language, may have alluded to the participants searching for assurance or acceptance in their answers.

As previously mentioned, it is also crucial to comment on the role that SHARE India may play in influencing participant responses and reactions to new research endeavors. SHARE India is currently conducting other research in each of the villages studied in this project. In fact, each study village selected for this project has had a research presence for many years. Therefore, the participants in this program are all familiar with research and many of them were also involved in other SHARE studies at the time of this project. This means that some participants may have felt compelled to respond in a certain way to appeal to SHARE researchers.

5.6.3 Moderator Limitations

The moderator chosen to conduct the FGDs was very experienced in leading discussions with the target population. Before conducting the FGDs, there was limited time to work with the moderator and thoroughly communicate the project backgrounds and objectives. Although the moderator was very familiar with maternal and child health issues, she lacked knowledge on Social Marketing and health communications. Also, although the moderator was fluent in English, there were some issues with translation of key concepts. With that said, the moderator was extremely capable and had adequate command over the key concepts discussed in the FGD even with limited preparation time.

5.7 Conclusion

This study presents a novel technique for blending community engagement and Social Marketing campaign development processes. These results have exciting implications for future work around participatory campaign development and increased synergy between the fields of participatory research and Social Marketing. This work utilizes a unique blended approach that
combines two tried and true approaches to instilling lasting behavior change in populations. The study was successful in producing rich insights into the target audience using a feasible approach for community engagement. Moving forward, this blended approach should be further investigated as a potential method for igniting social change.
APPENDIX A: IRB APPROVALS
Memorandum

To: Mara Leff
From: IRB Office
Date: 5/29/2015
IRB#: PRO15050011
Subject: Community Participatory Intervention Design Workshops Around Handwashing Practices in Rural Telangana

The above-referenced project has been reviewed by the Institutional Review Board. Based on the information provided, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(2).

Please note the following information:

- Investigators should consult with the IRB whenever questions arise about whether planned changes to an exempt study might alter the exempt status. Use the "Send Comments to IRB Staff" link displayed on study workspace to request a review to ensure it continues to meet the exempt category.
- It is important to close your study when finished by using the "Study Completed" link displayed on the study workspace.
- Exempt studies will be archived after 3 years unless you choose to extend the study. If your study is archived, you can continue conducting research activities as the IRB has made the determination that your project met one of the required exempt categories. The only caveat is that no changes can be made to the application. If a change is needed, you will need to submit a NEW Exempt application.

Please be advised that your research study may be audited periodically by the University of Pittsburgh Research Conduct and Compliance Office.
Dated: 20.04.15

To

Ms. Mara Leff,
Research Scholar
Department of Behavioral and Community Health Sciences,
Graduate School of Public Health,
University of Pittsburgh, USA.

Through:
Dr. Garesh Oruganti,
Director Public Health,
SHARE INDIA,
Ghanpur Village, Medchal Mandal,
R.R.District – 501401 T.S.

Sub: "Community Participatory Intervention Design Workshops Around Hand washing Practices in Rural Telangana, India."

Ref: Your letter dated 12.03.15

Dear Ms. Mara Leff,

Please refer to your letter dated 12.03.15 enclosing the study protocol in respect of the above subject study.

The following members of the MediCiti Ethics Committee were present at the meeting held on 16.04.2015 at 3.30 PM MediCiti Hospitals, Sarovar complex, Salabab, Hyderabad.

Dr. P. Satyanarayana - Chairman
Mr. D. Surya Rao - Member Secretary

Members

Dr. Anuradha
Dr. N. Dutta Roy
Mr. K. Madhava
Mr. K. V. L. N. Sharma

Mrs. Madireddy Ushasree
Dr. Suresh Reddy
Dr. Vijayaraghavan

Mrs. Madireddy Ushasree

Dated: 20.04.15

To

Ms. Mara Leff,
Research Scholar
Department of Behavioral and Community Health Sciences,
Graduate School of Public Health,
University of Pittsburgh, USA.

Through:
Dr. Garesh Oruganti,
Director Public Health,
SHARE INDIA,
Ghanpur Village, Medchal Mandal,
R.R.District – 501401 T.S.

Sub: "Community Participatory Intervention Design Workshops Around Hand washing Practices in Rural Telangana, India."

Ref: Your letter dated 12.03.15

Dear Ms. Mara Leff,

Please refer to your letter dated 12.03.15 enclosing the study protocol in respect of the above subject study.

The following members of the MediCiti Ethics Committee were present at the meeting held on 16.04.2015 at 3.30 PM MediCiti Hospitals, Sarovar complex, Salabab, Hyderabad.

Dr. P. Satyanarayana - Chairman
Mr. D. Surya Rao - Member Secretary

Members

Dr. Anuradha
Dr. N. Dutta Roy
Mr. K. Madhava
Mr. K. V. L. N. Sharma

Mrs. Madireddy Ushasree
Dr. Suresh Reddy
Dr. Vijayaraghavan

Mrs. Madireddy Ushasree
Medici Ethics Committee
Medici Hospitals, Medici Institute of Medical Sciences & SHARE Organizations
Office: Medici Hospitals, 5-9-22, Secretariat Road, Hyderabad -500063
Recognized by Human Subjects Federal wide Assurance (No: PW4000052004)
Email:medici.ee@gmail.com

Chairman
Dr. P. Satyanarayana
MBBS, MHA, FIANS
Secunderabad
986637675

Member Secretary
Mr. D. Surya Rao
BSC, B.L., G.C. Member
Medici,
Retired Judicial Member
Hyderabad
040-27631503

Mr. Siddhar Acharyulu M
LL.B, LLM, MCI, PhD
Professor of Law, NALSAR
Hyderabad
9440412108

Mr. E. Madhava
President,
Saihgya Seva Samstan
Hyderabad
9876117020

Dr. Anuradha
MBBS, MD, MAMS
Nephrology
Medici Hospital, Hyd
9849653553

Dr. K. V. L. N. Sharma
MAMS, MD (Gastroenterology)
MBBS, Hyd
9849419776

Dr. N. Dutts Roy
MBBS, MD (Microbiology)
Secunderabad
9441886935

Dr. Surendra Reddy
MBBS, MD (Anesthesiology)
Director of Administration
MHN, Hyd
9585011401

Dr. K. Vijayaraghavan
M.Sc (Comm. Hlth.)
M.Sc (Applied Nutr., MBBS,
Hyderabad
09495070830

Dr. Subbarao Khamala
MD, Pharmacology
Professor MHS., Hyd
9849350584

Mrs Madireddy Usharee
Ma Economic
Larperson
Hyderabad
950562434

Mrs Bindu
Convener(Nonmember)
Medici Hospital, Hyd
9482044599

On a consideration of the study papers submitted by you The Medici Ethics Committee resolved to accord approval for the above said study, to be conducted by Ms. Mara Lef, Research Scholar, from GSPH, University of Pittsburgh, USA. The committee noted that study preceptor will be Dr. Jammy Guru Rajesh.

The Medici Ethics committee operates as per ICH-GCP guidelines as well as local regulatory requirements.

Yours sincerely

Mr. D. Suryarao
Member Secretary,
Medici Ethics Committee
Community Participatory Intervention Design Workshops
Telangana, India

This study aims to involve mothers living in rural Telangana in the initial design stages of an intervention aimed to increase handwashing practices. Participants will provide input on messaging and potential programmatic concepts to inform future intervention development. Ideas and concepts created by study participants will also be tested within the focus group setting.

Mara Leff (primary investigator) under the supervision of Dr. Jammy Guru Rajesh, Dr. Jessica Burke, and SHARE India

Moderator’s Guide

i. Collect Demographics:
Ask to collect basic demographics from participants (de-identified using only number ID)
1. Age of participant
2. Age upon marriage
3. Number of children
4. Age upon first pregnancy

A. Introduction
Good afternoon, my name is Mamatha and I’ll be your moderator today and this is Mara from the University of Pittsburgh in the USA. Welcome to our focus group discussion today. A focus group is a small group discussion that focuses on a particular topic in depth. Today we will be talking about handwashing and its important connection to health.

We want to hear your ideas and thoughts about what kinds of programs or campaigns could be created to improve handwashing among mothers like you. We want to know what kinds of messages would work best to reach your peers, and what kinds of campaigns would be the most successful in creating behavior change. We want you to imagine that you are a health promotion worker and you are given the job of coming up with ideas and concepts that you believe could improve health by reducing diseases like diarrhea.

We thank you because you are helping us to understand what kinds of programs could be the most helpful for mothers in the future. We hope that one day your ideas and insights may be used to create programs to help women and their families lead healthier lives.

In a focus group, there are no right or wrong answers, only opinions, and we would like to hear from all of you equally. It’s important that we hear what each of you thinks, because your thoughts may be similar to those of many other people who aren’t here today. Your
ideas are extremely important to us, and we are interested in your comments and opinions. Please feel free to speak up even if you disagree with someone else here. It’s OK to disagree, because it’s helpful to hear different points of view. We are also interested in any questions you may have as we go along.

We’re audiotaping our discussion. Everything you say is important to us, and we want to make sure we don’t miss any comments. Later, we’ll go through all of your comments and use them to prepare a report on our discussion. We want to assure you, however, that all of your comments are confidential and will be used only for research purposes. Nothing you say will be connected with your name. Also, if there are any questions you would prefer not to answer, please feel free not to respond to them. Also all of the information collected will be securely stored.

Verbal Consent:
You are not obligated to be here. We now want to make sure that everyone understands the goal of today and is willing and able to participate (ask the group members to provide verbal consent)

B. Discussion

1. I’d like to begin by having each of you tell us a little about yourself.

2. Provide brief overview of what is a health promotion communications campaign:
   • Large scale or small scale campaigns that include advertisements and activities about a health topic
   • Banners, posters or brochures that provide education or information on a health topic
   • Radio or TV ads that provide education or information on a health topic

   SHOW EXAMPLES

3. Can you discuss some of the health promotion campaigns that you have seen your village or nearby?
   • Where and when did you see these health campaigns?
   • Did you see them on TV, on the radio, at the hospital, on a road sign or other places?
   • How long did you see these advertisements?
   • What kinds of health topics did the advertisements show?
   • Did these advertisements use a lot of text or pictures also?
   • How did the advertisements make you feel?
   • Did the advertisements you saw make you want to change your behavior and
WHY?

4. What did you like or didn't like about the campaigns that you have seen?
   - Where there certain words or slogans that were used in these advertisements that you thought were good?
   - Did you like the tone of the advertisements? Where they funny? Where they scary? Where they sad? **What examples of funny or scary or sad?**
   - Did you prefer if the advertisements used text or visuals? What do you think works best to reach mothers like you? **What were the text and visuals that you saw?**

5. What do you think about the connection between mother's hand washing and her child's health. Do you think those are connected? Tell me how:
   - Do you wash your hands before your feed yourself or cook food for your self? Why would you not be able to wash your hands before your feed yourself or after you use the toilet?
   - Do you seek medical care if you are sick? If you do not, what are the barriers to seeking care? Obligations to family? Time? Access? Financial barriers?
   - **Who taught you that it is important to wash your hands?**
   - Do you see advertisements about washing your hands? Where did you see the advertisements about hand washing? What were they like and what did they say?

<table>
<thead>
<tr>
<th>ACTIVITY</th>
</tr>
</thead>
</table>

1. Can you think of a time when you were asked what your opinions or feelings about what kinds of programs would help to improve the health of your family and your neighbors?

**Now we want to know your opinion on a** campaign to increase hand washing among mothers like you? We want to know how to make a campaign that would get the attention of mothers like you and influence them to conduct healthy behaviors. **This is meant to be a fun activity; there are no wrong or silly answers. Let’s now work together.**

1. What words are important to use in a message about hand washing? **Examples**

2. What are some slogans you would use to promote hand washing? **Examples**

3. Should the messages be motivational, scary, funny? What would work best to get your attention? **Why would these examples work best or not work to get your attention?**

4. Are visuals important? What kinds of visuals are best? For example, do you like real
photographs showing how to wash your hands? Do you like cartoons that show you how to wash your hands? Examples

5. Should messages be shown in print like on a brochure, on the radio, in doctors’ offices etc.? What is the best channel?

6. How long do you think a campaign should last in the public to reach other mothers? 6 months? 1 year? Etc.

7. Do you think that this kind of communication campaign that we have been discussing would be effective?

D. Message and Concept Testing (For groups #3 and #4 ONLY)

Thank you for all of your responses. Before we met with you, we also talked with mothers in other villages near here. They also answered our questions and gave us useful information on this topic. We are very thankful for all of the input.

At this time, we would like to share with you some of the ideas that the previous groups came up with so that you can tell us what you think.

PRESENT ANSWERS FROM ACTIVITIES SECTION FROM GROUPS #1 and #2

6. Would the messages inspire you to change your behavior?
7. How do the messages make you feel?
8. Do you like these messages? Can you relate to these messages in terms of culture?
9. What would you add to the concepts and messages? Would you remove anything?
10. Would the outlets described to promote the messages be effective in reaching you and your peers?

E. Conclusion:

We would like to again thank you for taking the time to meet with us. At this time, do any of you have any additional questions or comments?


UNICEF/WHO, Diarrhoea: Why children are still dying and what can be done, 2009


World Health Organization. Preventing Diarrhoea Through better Water, Sanitation and Hygiene; Exposures and impacts in low- and middle-income countries. 2014 http://apps.who.int/iris/bitstream/10665/150112/1/9789241564823_eng.pdf?ua=1/&ua=1