



“TREAT THEM WITH LOVE:”
EMPOWERMENT OF COMMUNITY
HEALTH WORKERS AS AGENTS
OF CHANGE

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MPH CAPSTONE PROJECT

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Abstract

Background: The Jamkhed Comprehensive Rural Health Project (CRHP) has been a leading NGO at empowering poor and marginalized women as village health workers (VHWs) and agents of transformation for the past 40 years. A 2006 WHO report described the effectiveness of empowerment to improve health. While characteristics associated with empowerment are known, methods required to achieve true and sustainable empowerment have seldom been documented or studied in detail.

Objective: The purpose of this study is to conduct formative research to obtain a deeper understanding of the themes and components of a successful comprehensive grassroots training strategy shown to foster empowerment among the most vulnerable sections of society (i.e. women) and its resultant documented improvements in the health status of communities.

Methods: Utilized qualitative research methods, including focus groups with 18 VHWs who volunteered to participate. Purposive sampling was used to recruit participants who were implicitly perceived by the CRHP staff to be highly empowered. Focus groups were stratified by years of experience and date of initial training to homogenize the groups and observe for potential outcome differences in empowerment strategies over the past 40 years.

Results: The focus groups were guided by 6 themes consistent with an empowerment approach to training. These included trusted sources of knowledge; effective learning methods and environment(s); qualities of effective VHWs; defeating stigma; empowerment through critical assessment and community organizing; and motivation to serve. These themes were designed to ascertain the characteristics of the learning environment created by CRHP to foster empowerment as well as the internal characteristics and qualities of VHWs.

Conclusion: Empowerment of VHWs was found to be a concrete and logical process involving the creation of a safe and supportive environment conducive to participatory and experiential learning with involvement of professionals as facilitators. Emphasis is placed on learning, which is a decentralized and continuous process. This environment fosters self-development and creative expression and can be a powerful strategy for community-based organizations to nurture a sustainable empowerment process. The Jamkhed VHWs, many of whom represent oppressed women, have become bold, proactive leaders and agents of social transformation.

Introduction

The concept of empowerment, as both a process and a goal, has taken considerable prominence within community organization theories, especially as operationalized by non-governmental organizations (NGOs) since the 1970s (Wallerstein, 2006). Prevailing attitudes of that time facilitated a modest shift from the hegemony of top-down or vertical approaches to community development and health promotion in favor of more comprehensive strategies aimed at achieving greater sustainability of outcomes in health and quality of life (Wallerstein, 2006). These sentiments culminated in the historic 1978 Alma Ata conference on primary health care in Kazakhstan where the motto of *Health for All* through community participation and empowerment was espoused (Baum, 2007).

The literature on women's empowerment as a means of improving the health of vulnerable populations and reducing social inequities has been growing over the last few decades (Weisman, 2000). These studies attempt to describe the characteristics typically associated with empowerment, especially with regard to marginalized or oppressed communities and groups (e.g. women, indigenous peoples, and other ethnic and political minorities). While the concept of empowerment is quite amenable to interpretation based on the context, a basic definition can be phrased as the process of gaining mastery over oneself and one's community to produce positive change (Rimer, 2005). In practicality, an empowerment-based health and development program would seek to enable individuals and communities to access appropriate knowledge, obtain appropriate tools and take responsibility for critical assessment, decision-making capacity, and a means of engaging in meaningful collective action on issues of local importance (R. S. Arole, 1999c). Other described characteristics of empowerment have included organizational capacity of the community to ensure

accountability of governing bodies and acceptance or acknowledgment of the concept of health as a human right (Wallerstein 2006).

Two recent comprehensive reviews addressing the links between empowerment, health and social change have been commissioned by the World Health Organization (WHO) and the World Bank. These include the 2006 WHO report, “What is the evidence on the effectiveness of empowerment to improve health?” and the 2002 World Bank report, “Empowerment and Poverty Reduction: a sourcebook (Narayan, 2002; Wallerstein, 2006). These reports provide rather broad and general analyses of previous research to elucidate the impact of empowerment approaches in public health as well as the characteristics typically associated with empowerment as noted.

The WHO and World Bank reports cover wide ranging research documenting the effectiveness of empowerment to improve health at the community, organizational and societal levels. Such research is indeed helpful in defining key aspects of the concept of empowerment and the value of incorporating these elements when designing and implementing health and development programs and strategies. What is lacking is adequate evidence to describe the precise methods and tools used by successful programs where genuine empowerment was indeed achieved among those with traditionally the least power and authority at the household and community levels (Manderson & Mark, 1997). This knowledge is especially important when considering that operationalization of the concept of empowerment is most needed among especially vulnerable sections of society in order to allow them to take back control over their own health and lives. Empowerment would thereby initiate a process of putting an end to the vicious cycle of poverty, which can lead to sustainable improvements in health, political and social autonomy, and quality of life.

There are also opposing view points on which approach is most effective to achieve the empowerment of poor and marginalized groups. The World Bank report takes a more vertical approach to empowerment, focusing more on political or state reforms in order to achieve

conditions favorable to maximize human potential and reducing perceptions of powerlessness and voicelessness (Narayan, 2002). The WHO report takes a more micro-level approach to empowerment. In addition to describing the need to identify and target social contextual factors that pertain to discrimination and the social exclusion of women and minorities, the WHO highlights the need to improve education, income-generating power, and household decision-making authority for women (Wallerstein, 2006). In turn, this translates into increased advocacy demands, enhanced organizational capacity, improved economic conditions, and policy changes as a result of greater internal or self-advocacy and stewardship (Wallerstein, 2006).

The knowledge of the nature and process of empowerment is not a concept that is inherently abstract nor is it exceptionally difficult to describe for those who have experienced success with such methods. Yet, few researchers have taken up the task of documenting such methods and practices. Private organizations (e.g. NGOs) can be found throughout the world that have found ways of developing and instilling long-lasting leadership qualities and stewardship among people and communities in low-income settings with great success (Behdjat, Rifkin, Tarin, & Sheikh, 2009; Manderson & Mark, 1997; Taylor-Ide, 2002). However, a greater availability of documented best practices and successful methods would make a significant contribution to the field and enable a greater number of practitioners to implement more evidence-based interventions as well as informing the criteria used by funding agencies that support community-based health programs with grassroots or community health worker components.

This research utilizes the case study of one of the world's most successful community-based primary health care organizations. The Jamkhed Comprehensive Rural Health Project (CRHP) has been widely acknowledged and recognized for nearly four decades of successfully facilitating the transformation of local women from poor Indian villages into agents of community change,

mobilization and positive transformation, as identified by the WHO and experts in the field of international health (Chand, 2007; McCord, Premkumar, Arole, & Arole, 2001; Newell, 1975; Taylor-Ide, 2002; WHO, 2004). This research attempts to elucidate the nature of the empowerment-related processes, methodology, and techniques being utilized and refined by the CRHP through its village health worker (VHW) training and support program.

Rather than simply describing the detailed operations of a grassroots training center for health and development, this study attempts to portray and emphasize the “Jamkhed Model” as a guide to the successful creation of a truly participatory learning environment. In such an environment, the VHWs of Jamkhed are allowed to interact, experiment, adapt, and internalize knowledge rather than merely acting as passive recipients of health information that gets faithfully transmitted to their communities in an unaltered form. In some sense, the learning environment of Jamkhed reflects an educational philosophy that Paulo Freire referred to as critical pedagogy or the process of facilitating learners to attain a state of critical consciousness (Freire, 2000). This, we hypothesize, has led to a highly developed state of empowerment among these women and in turn has given them the confidence and strength to capably fight injustice, oppression, and poverty in their respective communities.

Four focus group discussions were conducted in January 2010 with the VHWs of Jamkhed. The results of these discussions are presented here to improve our understanding of the role played by CRHP’s VHW training program in empowering local women as change agents. This study explores ways in which the training program of CRHP has adapted to contextual changes that have been taking place in its project area since 1970. Additionally, the study attempts to identify those elements of the program believed to be most essential for personal growth and empowerment of these women. This was assessed by separately interviewing groups of older and younger generations of VHWs to elicit their views and opinions on how the training and learning process has

led to significant changes in their lives and enhanced their capacity to improve the health and socioeconomic conditions of their villages. The VHWs were asked to identify those elements of the program they found most relevant, engaging and empowering. Findings from these focus groups will inform future research aimed to develop instruments to objectively or semi-objectively measure the state of women's empowerment in any particular community. Additionally, these findings may be utilized to design evaluations that measure the relative contributions of various elements of community health worker training and support programs at achieving some target level of women's empowerment.

Jamkhed: Its History and Social Context

With over four decades of field experience, the Comprehensive Rural Health Project (CRHP) has much to offer to other NGOs, institutions and government health agencies interested in participatory approaches to building local capacity through empowerment in order to attain sustainability of community-based health programs. In this context, sustainability is defined as the capacity of a community to organize and competently take over the ownership and management of the essential elements of a health program with little dependency on external agents (R. S. Arole, Arole, S. & Arole, R., 2010). In this respect, CRHP has been among the leaders in the movement to utilize grassroots workers to spearhead community-based primary health and development activities through training programs provided at the Jamkhed Training Center for Community-Based Health and Development operated by the CRHP.

To better appreciate the extent to which the project villages of CRHP have developed, it is important to understand the history of how this NGO came to exist. The Comprehensive Rural Health Project was established in 1970 in the village of Jamkhed, Maharashtra by Dr. Rajanikant and his late wife Dr. Mabelle Arole. The Aroles committed themselves early in their careers to work

with India's rural poor and marginalized peoples (M. Arole, Arole, R., 1994). Having graduated from the Madras University Christian Medical College (CMC) in Vellore, they obtained extensive residency training as well as masters of public health degrees at the Johns Hopkins School of Public Health and other U.S. institutions (M. Arole, Arole, R., 1994). During the course of their MPH training the Aroles planned an ambitious project that would effectively meet the immediate and long-term needs of India's struggling rural peoples, especially women and *Dalits* (untouchables). They envisioned working directly in partnership with the villages by tailoring interventions to meet the jointly identified priorities of each community (M. Arole, Arole, R., 1994).

Upon their return to India, the Aroles began what turned out to be a three year process of formative research, including conducting a needs assessment, and familiarizing themselves to the local people prior to implementing the project as planned (M. Arole, Arole, R., 1994). Countless village visits were made and they engaged local people in dialogue by holding open community meetings and meeting with local leaders to understand where community cooperation and participatory development would be most welcomed (M. Arole, Arole, R., 1994). Based on a positive response and the dire health situation of the Jamkhed taluka (village development block), it was decided to make this area the home of the CRHP (M. Arole, Arole, R., 1994). Refer to table 1 for a longitudinal and comparative overview of the general health status of CRHP's project villages.

Located 380km (250 miles) east of Mumbai in the district of Ahmednagar in Maharashtra state, the town of Jamkhed lies 80km from the nearest urban center and at the time was devoid of virtually any infrastructure, except for a rough dirt road and several motorcycles (M. Arole, Arole, R., 1994). Lying within the rain shadow of the Deccan plateau, Jamkhed can be characterized as a semi-arid, drought-prone region with fairly flat land and poor, rocky soil (R. S. Arole, Arole, S. & Arole, R., 2010). The majority of the population is engaged in agricultural activities for survival and at the time of the Aroles' arrival, local farmers did not have access to either expensive/high quality seeds

or the agricultural knowledge to maximize the efficiency of their land and available resources (R. S. Arole, Arole, S. & Arole, R., 2010). The people have traditionally grown grains and some vegetables with very limited variety for their own use and the market whenever possible (R. S. Arole, Arole, S. & Arole, R., 2010). Bullocks were and are still used for ploughing, irrigation is largely rain-fed, and women do most of the weeding and harvesting (M. Arole, Arole, R., 1994). Rainfall is quite meager with most precipitation coming in the monsoon months of July to September. Long dry spells of 9 months or more are not uncommon and failure of the annual monsoon rain occurs every few years, compounding an already difficult situation in which less than 1% of the land is irrigated (R. S. Arole, Arole, S. & Arole, R., 2010).

In the early '70s, the people of Jamkhed were living in near-famine conditions as a result of severe drought and lack of access to adequate water supplies (M. Arole, Arole, R., 1994). Levels of ill-health and poverty were among the worst in the world (R. S. Arole, Arole, S. & Arole, R., 2010). Women were socially oppressed and often subjected to violence through child marriage, domestic violence, and general neglect by their husbands and/or their in-laws with whom they often reside (R. S. Arole, Arole, S. & Arole, R., 2010). They were often forced to toil in the fields all day while tending to the needs of their families at night and early morning (R. S. Arole, Arole, S. & Arole, R., 2010). Needless to say there was little regard for their rights. Fetching water was another task reserved for women, which involved walking long distances while balancing heavy vessels atop their heads and on their hips. When work in the fields had diminished, extreme poverty and deprivation forced nearly half of the local population to migrate on a seasonal basis in search of temporary work in the hazardous urban factories and far off sugar cane plantations since food and other basic necessities became unaffordable and unavailable in the Jamkhed area (R. S. Arole, Arole, S. & Arole, R., 2010).

Jamkhed: The Development Process

Initially covering a small number of villages with average populations of 1000-5000, the project quickly began to expand in its early years to reach out to a larger number of village communities which began expressing a desire to join the movement in greater numbers (M. Arole, Arole, R., 1994). Through diffusion of innovation, “the Jamkhed Model” had begun to spread locally as neighboring villages began recognizing the powerful transformations taking place in villages that had partnered with the CRHP (R. S. Arole, Arole, S. & Arole, R., 2010). Despite significant funding restrictions and little outside institutional support, the CRHP eventually reached over 300 villages with a combined population of 500,000 (R. S. Arole, Arole, S. & Arole, R., 2010). Local communities participated through the selection, training and support of village health workers (VHWs) and through the formation of informal Community-Based Organizations (CBOs) such as Farmers’ Clubs, Mahila Vikas Mandals (women’s development groups) and Self-Help Groups (SHGs) (M. Arole, Arole, R., 1994). Later additions included the adolescent girls groups and the child-to-child program.

The Aroles and staff of the Comprehensive Rural Health Project envision health in its broadest and most holistic sense. They believe that health does not depend merely on hospitals, doctors, nurses and medicines; nor does it exist in isolation (M. Arole, Arole, R., 2003). Health is interrelated with nutrition, environment, agriculture, economics, education, women’s status and other social, economic, and political factors (M. Arole, Arole, R., 2003). Therefore, it is believed that a comprehensive, holistic approach represents an effective solution for dealing with the health problems of the poor. The Aroles discovered that ordinary villagers, regardless of literacy or education, given proper encouragement and support, have the capacity to work as a cohesive community to improve local health conditions and quality of life and break down ancient social injustices such as caste and gender discrimination (R. S. Arole, Arole, S. & Arole, R., 2010).

The people of Jamkhed have realized the importance for and have begun to act decisively to conserve precious environmental resources through afforestation programs, planting over 5 million trees; water conservation and watershed development to help ensure the annual availability of ground water; improving farming techniques to increase yields by promoting sustainable agricultural practices, reducing soil erosion/depletion and encouraging use of highly nutritious and drought-resistant crops (M. Arole, Arole, R., 1994). Sanitation, including personal and domestic hygiene, has likewise improved due in large part to highly effective community-based health education programs and more access to water and other resources (R. S. Arole, Arole, S. & Arole, R., 2010). By popularizing the use of soak pits and organizing regular community clean-up campaigns the villages of today have virtually eliminated stagnant waste water, which can serve as breeding grounds for mosquitoes and flies (M. Arole, Arole, R., 1994). A growing number of latrines are being built to reduce open defecation and eliminate fecal-oral disease transmission with people becoming more accepting of their use (R. S. Arole, Arole, S. & Arole, R., 2010). These examples depict how the villages of Jamkhed have been empowered to take control over their own health and future.

Community participation in all aspects of health and development programming lies at the heart of this approach. The project seeks to empower communities by encouraging self-reliance and building local capacity rather than continuing their reliance upon outside organizations and other entities (R. S. Arole, 1999c). As the primary stakeholders and beneficiaries of all local health and development programs, the people of Jamkhed feel a deep sense of ownership for all community-based health activities, including those dealing with environment and agriculture, health, education, and income-generation (R. S. Arole, Arole, S. & Arole, R., 2010).

Table 1. Comparative Health Statistics (1971-2007)						India: national statistics
<i>Source: Monitoring and evaluation data from a representative sample of project villages in Jamkhed [Courtesy of the Comprehensive Rural Health Project]</i>						
YEAR	1971	1976	1986	1999	2007	2006
Infant Mortality Rate (per 1000)	176	52	49	26	24	57
Crude Birth Rate (per 1000)	40	34	28	20	14.8	24
Maternal Services %						
Prenatal care	0.5	80	82	97	99	74
Safe deliveries	<0.5	74	83	98	98	47
Couples practicing family planning	<1	38	60	60	65	56
Children Under Five %						
Immunization: DPT & Polio	0.5	81	91	99	87**	55*
Malnutrition: Wt for age	40	30	5	5	<5	48
Chronic Diseases (per 1000)						
Leprosy prevalence	4	2	1	<0.1	0.04	0.09†
TB prevalence (all forms)	18	15	11	4	1.2	3.0†

India statistics source: UNICEF, India 2006

*One year old children immunized against Polio only

**In 2001, CRHP transferred control of the immunization program to the government.

†Source: WHO, India 2006

Methods

This study was guided by principles of community-based participatory research. An underlying assumption is that Jamkhed's extensive experience in the field of comprehensive community-based primary health and development programming has resulted in a highly conserved and sustainable process of facilitating the empowerment of local women as village health workers (VHWs) and community change agents. The last forty years of operations have firmly rooted the CRHP within

the local sociocultural, political, and economic contexts, allowing it to be identified as a strategic community partner and key local stakeholder by their community collaborators and external entities. The leadership of the CRHP expresses few differences between the interests and well-being of the organization and that of the people and communities they serve (R. S. Arole, Arole, S. & Arole, R., 2010).

With Jamkhed as its headquarters, the CRHP remains far removed from academic institutions and professionals who tend to reside and work mostly within large urban centers. Until recently, the organization has not developed a strong research agenda, partly due to its physical isolation and resource constraints. Research, including the present study, represents growing interest within the CRHP to engage in operational and community-based participatory research involving academic-community partnerships. These partnerships and the resultant work have the potential to improve upon the design, efficiency and quality of CRHP's many community-based health and development programs. Exploring in greater depths such themes as women's empowerment is identified as a major priority in order to promote Jamkhed as a global training and demonstration center. The availability of systematized and documented best practices is an expressed priority of the Jamkhed Training Center, which seeks to make this knowledge widely available to those who wish to engage in participatory, community-based health and development program planning (R. S. Arole, Arole, S. & Arole, R., 2010).

For the purposes of this study, the availability of CRHP's key field staff, namely the members of the mobile health team (MHT), provided an important bridge between the academic researchers and the communities which the VHWs serve. The staff members most closely involved in the research included a female social worker who also functions as a grassroots trainer and a professional translator. The other male staff member works as a development worker and field

monitoring supervisor. These individuals have been working very closely with all of the project villages of CRHP for several decades and are respected and trusted by the VHWs and other people in those communities. They too are familiar with all of the VHWs who are partnered with the CRHP. Importantly, these project staff members were born and raised in parts of Maharashtra state relatively close to Jamkhed, giving them an intimate and personal understanding of the language and cultural context in which these project villages exist. The associate director and the director of operations and logistics were likewise involved in all stages of research planning. The academic team worked closely with the CRHP staff members in formulating research questions, reviewing the proposal and its ethical considerations, reviewing and editing all research instruments, and organizing focus group sessions. Following a review, approval was granted by the Jamkhed Research Ethics Board (JREB), a community IRB established by the Comprehensive Rural Health Project and its local partners to oversee the scientific and ethical procedures of all research taking place in this area.

A focus group guide was developed to provide structure and direction for these discussions. Significant input for the design of the guide was received from the CRHP training and field staff as well as its leadership. Given the time and funding constraints of this study it was not possible to pre-test the questions with actual VHWs from the project villages. However, the questions in the guide were thoroughly reviewed by experienced field staff of CRHP for validity and consistency with the main research questions, using both English and Marathi translations. The themes developed for the focus groups included the village health workers' perceptions of (1) trusted sources of knowledge on health and social issues/problems; (2) most effective learning methods and environment(s) during their role and training as VHWs; (3) qualities and qualifications necessary for an effective VHW; (4) overcoming stigmatized diseases individually and the holistic approach to abolish discriminatory practices in the community; (5) empowerment through learning critical assessment

and community organizing; and (6) motivation for serving as VHWs. These themes were designed to ascertain the particular characteristics of the learning environment created by the CRHP to foster VHW empowerment as well as the internal characteristics or qualities of VHWs that are manifested as a result of this transformational process. The discussions always began with introductions by the VHW participants as well as the two researchers present and the CRHP staff member who was acting as a translator. Initial questions were designed to be general in order to help develop rapport and trust with the participants. As the discussions progressed, the questions became more specific and experiential with probe questions used to keep the conversation on track. Participants were allowed to respond to one another and the facilitators ensured that all had the opportunity to address the questions being raised.

All research materials, including consent forms, were professionally translated from English to Marathi, the regional language of Maharashtra that is spoken in the villages of Jamkhed. All translations were verified by trained and experienced field staff members of CRHP who are expertly fluent in the local variant of Marathi as spoken in these villages. Translations were also evaluated based upon their appropriateness to the local context and level of comprehension. Recommended revisions were made to reduce the likelihood of misinterpretations or misunderstandings given that most of the study participants had not completed more than four years of formal education and in many cases were functionally illiterate. All relevant documents, including the consent forms, were read out loud to study participants who were given opportunities to ask questions or raise concerns regarding any aspect of the research.

Focus groups methods included purposive and convenience sampling of group participants. Following the review and approval of the research proposal and protocol by the Johns Hopkins Bloomberg School of Public Health Institutional Review Board (IRB), recruitment for the study

commenced in January 2010. Recruitment was conducted solely at the CRHP compound in Jamkhed, jointly by the training center as well as the field staff of the CRHP along with the academic researcher present on-site.

As a standard practice, the CRHP training center provides weekly follow-up training sessions open to all VHWs to reinforce the skills and knowledge they learned during the initial training and to build additional knowledge and skills. Groups of VHWs voluntarily travel from their respective villages to attend follow-up training sessions held on a weekly basis on the CRHP compound. These sessions usually run for two days with VHWs staying overnight. Village health workers who arrived for these sessions during the data collection period were approached by the CRHP training center staff and the researcher with a prepared recruitment script. This process was non-random with recommendations solicited from the training center staff members on which VHWs they believed would be more active participants in a focus group discussion based upon their personal and extensive knowledge of each VHW from class sessions as well field work. Given the research questions, it was important to select those VHWs who have clearly demonstrated the fullest characteristics of empowerment and have significantly contributed to making great changes in their communities. This strategy allowed the research team to document in greater detail those elements deemed most impactful based on the descriptions of *expert* village health workers who have apparently excelled, benefitted and fully contributed in this context.

All VHWs coming to the CRHP compound normally receive an honorarium to compensate them for their time and any travel expenses incurred. No additional compensation was offered to VHWs who agreed to participate in the focus groups. Participants in the study were stratified into two separate groups according to the year of initial training. The critical date chosen for stratification purposes was January 1, 1995. This was based largely on the decreased presence of Drs. Raj and Mabelle Arole in Jamkhed during the mid to late 1990s and the increased involvement

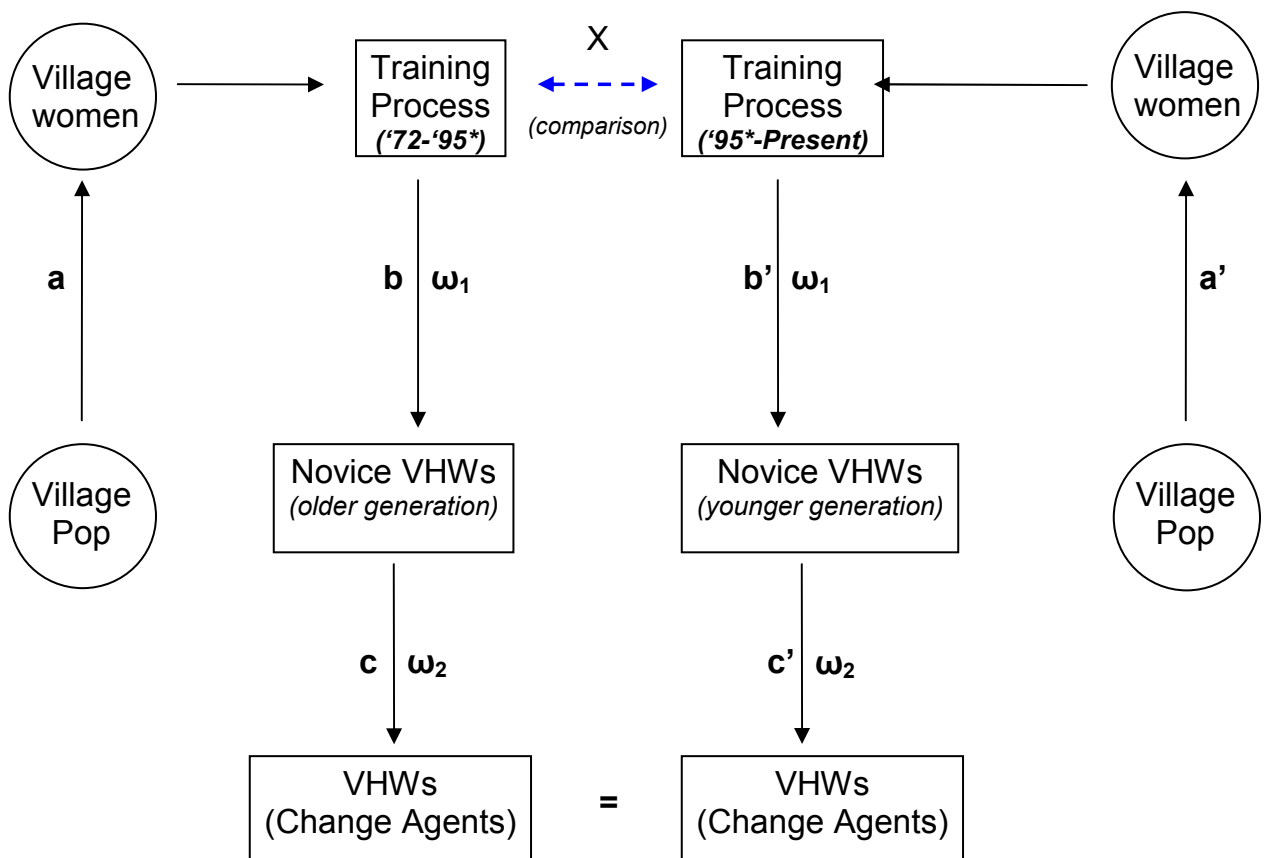
of their daughter, Dr. Shobha Arole, and other newer training staff members in the training process of the VHWs. Senior VHWs had also begun to play increasing roles as mentors and trainers in the training process of younger generations of VHWs. In addition, CRHP's Jamkhed Institute for Training and Research in Community-Based Health and Development became formalized in 1994. Contextual and environmental changes that were apparent during that time included changing health conditions in project villages as predicted by the epidemiologic transition curve, increasing literacy, education, and greater external influence (media, commerce, foreigners, and transportation and telecommunications improvements) all became more pronounced in the mid-1990s (R. S. Arole, Arole, S. & Arole, R., 2010).

Other activities associated with the study included observations of training sessions and group activities in which 15-35 VHWs assembled on a specific day each week at the CRHP training center in Jamkhed for refresher training courses, seminars and skill-building workshops. These sessions are led by a training staff facilitator and/or senior VHW. Review of internal training materials and manuals provided additional background on this long-running program of the CRHP.

Theoretical Framework

A central premise driving this research is that despite ongoing changes in the external environment, the project villages of CRHP, and the details and content of the village health worker training process, CRHP has maintained the quality of their VHWs. Evidence to support the continued effectiveness of this program includes a broad range of longitudinal quantitative health and socioeconomic statistics as shown in table 1 as well as qualitative studies documenting the perceptions and level of satisfaction of various community stakeholders in the performance and impact of the VHWs on the well-being of the communities.

With four decades of successful operation, it is likely that the VHW training program has developed an empowerment constant. This may be an element or elements essential to the empowerment of local women as community change agents, which is the ultimate goal of this training process. Through focus group discussions and semi-structured personal interviews, the attempt is made to determine whether the level of empowerment between the younger and older generations of VHWs is similar and to ascertain the nature and components of a potential empowerment constant.



X = Comparison of training processes

a = Village Health Worker selection criteria

b = Residential training process (Baseline)

c = Field/experiential learning process (longitudinal follow-up training at CRHP)

ω = Empowerment constant

*January 1, 1995 is used as the cut-off date

Variables Influencing VHW Self-Efficacy	
Intrinsic	Extrinsic
Role and level of involvement of family (immediate and extended)	Local effects of globalization
Personal educational history	Increasing urbanization
Knowledge, attitude, beliefs	Social norms around female education
Personal expectations, future outlook, motivations, goals, sense of volunteerism	Level of community organization, mobilization, and participation in health & development activities
Perceptions of the role and responsibility of VHWs	Presence of private fee-for-service health care providers near village
Perceptions of ownership and personal investment in health and development programs	Role and impact of social network(s) in the community

Results

A total of four focus groups were conducted at the CRHP compound in Jamkhed, India. Participants included 18 women village health workers (VHWs), both current and retired, who were trained by the Comprehensive Rural Health Project over the past 35 years. Each participant represents a different project village of the CRHP in which she lives and carries out her primary health care responsibilities. The groups were relatively small and limited to 4 to 5 VHWs in order to facilitate the translation process in a reasonable amount of time. Groups were stratified according to the year of initial training. Two groups included 9 VHWs trained prior to January 1, 1995. The mean age of the participants in these two groups was 57.9 years and the mean uninterrupted work experience was 28.9 years. Another two groups included 9 VHWs trained after January 1, 1995. Their mean age was 32.3 years and mean work experience was 12.2 years. The demographic and vocational characteristics of all four groups are presented in table 2.

A private room in the administrative building of the CRHP compound was provided for this study. This allowed the researchers to maintain a strict level of privacy for all participants in the focus groups. Audio and video recording equipment was used to facilitate accurate transcription of the discussions. The transcription was completed using Microsoft Excel by transcribing verbatim each participant's translated responses in their respective columns.

Present at each focus group were two academic researchers and one staff member of the CRHP who served as the translator. The presence of a CRHP staff member was found to be most advantageous given the familiarity of the translator with the participating VHWs and vice versa. This arrangement provided more comfort for the participants and likely encouraged them to speak more freely during the discussions. Since the VHWs function as volunteers, accountable only to the communities they serve, it was determined that there was no perceived conflict of interest in this arrangement that would significantly bias the outcomes.

Trusted sources of knowledge

Preliminary assessment of the learning environment that is created by the CRHP in Jamkhed was conducted through discussions with the staff and directors of the CRHP and a review of internal training materials. This revealed a number of distinct opportunities for VHWs to engage in a long-term process of dynamic and critical learning at the CRHP training center and the training activities taking place in the project villages. The VHWs were asked in the focus groups to identify which sources they prioritize and value most for accurate information and guidance as part of routine practice in primary health care and during acute events and crises. In terms of priorities, the physical base of the CRHP training center was a highly consistent response across all four groups in terms of the role it plays in the women's overall learning process as VHWs. In fact, only one woman in one of the younger VHW focus groups noted otherwise, saying that "the mobile health team comes to our village and provides training which is very important to me." This VHW

perceived field training and support as provided by the CRHP mobile health team to be most valuable in her general learning experience with the training center serving a complementary function.

When asked to describe the process used to acquire topical knowledge when encountering acute health or other related problems in the community, the responses exhibited moderate variation, especially between younger and older VHWs. Older VHWs had a fairly consistent response, identifying the CRHP training center as the principle source of information. Six out of 9 older VHWs specifically named Drs. Raj and Shobha Arole as a vital and first-line source of knowledge in times of uncertainty. Many of the older VHWs were also keen to acknowledge the immense contribution of Dr. Mabelle Arole, who passed away in 2000, to their personal and *professional* growth and development.

In contrast, only 2 out of the 9 younger VHWs began their list by mentioning the Aroles by name when describing vital sources of knowledge. However, nearly all women in the study mentioned the important role the Aroles have played in their learning and development process. Among the younger VHW participants, the first line of information gathering typically involved consulting with a community resource person or group, including the older VHW (if present), the *dai* or traditional birth attendant, the *Sarpanch* or mayor in one instance, and community groups such as the Self-Help Groups and Farmer's Clubs. One younger participant noted that "the dai in the village shares information with me about [managing] difficult deliveries" while another noted that the "older VHW is still working in my village and helps me learn about health problems and assists when I have difficulties." The first generation of VHWs trained by the CRHP was noted to play a vital role by the younger generation in that they were perceived to have a wealth of experience, knowledge, and skills to serve as highly effective mentors who are always available and willing to

assist on a regular basis and in difficult times. Regardless of how the individual responses were prioritized, the field training provided by the mobile health team and some elements of the CRHP training center (e.g. weekly follow-up group training sessions, mentorship by the Aroles and other training staff members, and the CRHP hospital nurses and doctors) were highly conserved responses, regardless of group. A major benefit of providing multi-faceted, longitudinal training for grassroots workers at the training center and the field is that the information is provided by different actors at multiple levels and remains highly consistent, which facilitates the learning process of VHWs and reinforces their trust and faith in this knowledge.

Effective learning methods and environment(s)

Focus group participants were asked to describe which techniques of learning and teaching they found most helpful in their pursuit of health knowledge. The CRHP training center emphasizes the importance of providing scientifically-based health education for VHWs and other members of the community while taking into account the importance of reframing these typically Western concepts and principles within a context that is appropriate to the local culture and its particular frames of reference. Table 3 describes the goals and competencies of CRHP's training program for VHWs. The three underlying themes include building relevant health knowledge, skills as well as leadership coaching and personal development.

The majority of all focus group participants described the importance of group sessions during their time at the CRHP training center for initial training as well as weekly follow-ups. One participant in an older focus group stated, "We learn much from each other and discuss everything that happens in our villages. If I have trouble understanding some topic, I usually ask a friend [fellow VHW] to explain it to me or we discuss it in class with Dr. Arole." The other participants expressed agreement and another added that "All VHWs have a relationship with love and concern for each other. We help each other learn about health and other topics and deal with difficult

situations. After class and after dinner, we sit together, and share experiences.” Such accounts were fairly consistent among all focus group participants and reveal the highly dynamic nature of the training process and the environment for learning as created by the CRHP to stimulate an effortless and ongoing exchange of knowledge and experiences among the VHWs. This structure also minimizes the role of the training staff given that the responsibility for sharing knowledge belongs to the entire group, thus blurring the lines between teachers and learners. Importantly, this structure prevents the NGO, namely the CRHP, from monopolizing the health knowledge and instilling dependency.

Decentralization of training is a major feature of the Jamkhed Model (M. Arole, Arole, R., 1999b). One participant in an older focus group noted, “If I miss a session at CRHP, I will always ask another VHW to tell me what they learned. When I started learning initially, I had trouble remembering the information so I would ask the more experienced VHWs to explain the material.” Such statements highlight the importance of establishing a network of community health workers who can gather in a common location on a regular basis to freely exchange information and ideas with one another along with experts available to facilitate, provide appropriate input, guidance, and skills training. The Aroles and staff of the CRHP placed significant emphasis on establishing a safe and welcoming learning environment where all VHWs receive equal respect and attention. They write, “At the training centre they [VHWs] did not have to cook or do any cleaning. Every minute was free for them to attend classes and discuss what they learned, both among themselves and with the trainer. They stayed overnight to have time to interact with each other” free from burdensome chores and some social restrictions they may normally face (M. Arole, Arole, R., 1994).

During the group sessions at the CRHP training center, the focus group participants described the use of skits/dramas, songs, anatomical models, observations within the hospital and operating

theater, goat dissections, and visual media (e.g. diagrams, pictures, puppet shows) to be most helpful in facilitating their understanding of diverse health topics. Repetitive and experiential learning along with observations and demonstrations is believed by the CRHP trainers to be a superior educational approach when working with adult learners who have limited or no literacy skills (M. Arole, Arole, R., 1999b). Several participants in each focus group were especially keen to acknowledge the insight they gained during a professionally guided anatomical dissection of a goat, including its abdomen, reproductive organs, and eye. This process helped these VHWs debunk many common local superstitions and myths which present obstacles to effective health education and a more complete understanding of the mechanics and physiology of the human body as appropriate and relevant at this level and given the needs.

Several focus group participants in both the younger and older focus groups described experiential field learning with guidance and support by the mobile health team as the most effective method of understanding health concepts for them. One participant stated, “I learn from the mobile team the most because whatever we learn at the training center has to be put to use in the villages and the mobile team helps me practically implement the knowledge with guidance and support.” Another participant noted that while learning about diarrhea treatment and prevention at the training center, the mobile team would visit her village, examine the children she identified who were affected by diarrhea and reiterated the process of preparing and administering the oral rehydration solution to help her remember. This reflects the importance of reinforcing concepts and skills learned at the training center with consistent follow-up and repetition in the communities. It is in these communities where VHWs act to reinforce positive health behaviors and administer to the primary health care needs of the people with efficacy largely determined by level of preparation and the presence of a supportive, open, and caring environment or infrastructure.

Qualities and qualifications for effective VHWs

The focus group participants were asked to reflect upon which qualities are important for a VHW to possess in order to effectively carry out her responsibilities in the community. In general, the participants responded very confidently and consistently on a set of values and qualities they perceived to be important in providing primary health care and mobilizing the people around common interests. *Prem* and *maya*, meaning love and affection, were especially prevalent responses to this question and reflect the nature and closeness to the community that this work entails of the VHWs. Other common qualities that were frequently mentioned across all 4 groups included patience, compassionate nature, smiling face, willingness to abandon casteism and bigotry, not selfish, even tempered, respectful, generosity, acceptance by the people, good listening skills, hard-working, not arrogant, honesty, and boldness.

The only point of contention revolved around the issue of educational requirement for rising VHWs. This is especially relevant given that the Government of India has proposed an educational requirement of 7th grade for the NRHM (National Rural Health Mission), a national program involving community health workers called ASHAs (Accredited Social Health Activists). The majority of participants expressed strong disapproval of an educational requirement. One older participant stated that “Educated women will just open their notebook and not pay attention as much. It’s more important to have women who show interest in learning, have good memory and attention.” A similar sentiment was expressed by another older participant, saying “Education is less important than zeal and passion for this work [but] she should have an interest in learning to read and write if she does not know from the start.” A younger participant commented that “it’s not just about education but how they use the knowledge. The previous VHW in my village was illiterate but she managed to change the people’s attitudes and improve life for many.” Although dissenting

viewpoints came from both older and younger focus group participants within their respective groups, the younger VHWs were slightly more likely to disagree with the government recommendation. For example, one of the older participants stated that “Standards should be set because it’s better to know some English as well as reading and writing skills to more easily learn new health knowledge.” A younger participant expressed that “Without literacy, the women are more likely to be deceived or taken advantage of. If they are literate, it will help them and their work as VHWs.” Minor dissent over this issue can be seen as potentially a result of the increasing complexity of the training and information being provided to the VHWs. This represents a natural process wherein the health priorities of the project villages are transitioning from acute infectious diseases to more chronic and lifestyle-related health problems (e.g. diabetes, cardiovascular diseases, cancer and injuries) as well as the increasing involvement of the VHWs in previously untouched areas such as addressing mental health needs (Kermode, Herrman, Arole, White, Premkumar, & Patel, 2007). The trainings are therefore introducing greater complexity related to disease processes as well as terminology, which includes some English words that are not easily translatable into Marathi. Inevitably, this presents a greater challenge for VHWs who have not completed primary school. However, the majority of focus group participants remained adamant that the growing complexity of knowledge, which they often referred to as “deep knowledge,” does not impede their ability to learn and apply this new information regardless of prior educational achievement.

Defeating the stigmatization of illness

Focus group participants were asked to reflect on the ubiquitous problem of stigmatized illnesses that exists in Jamkhed and throughout the world. These attitudes were especially pervasive in the communities from which these VHWs hail and greatly affected the lives of people living with leprosy, tuberculosis, HIV/AIDS, and mental illness. People with physically disabling conditions in

general are not fully accepted by society, such as those in rural India, and individuals known to have these stigmatized illnesses become severely marginalized and often deprived of even the most basic human rights (M. Arole, Arole, R., 1999a). Without intervention, many people in the villages believe these illnesses to be incurable, highly infectious, and the punishment of God for various wrongdoings (M. Arole, Arole, R., 1999a). Women affected by these illnesses tend to suffer the most and are often kicked out of the household, denied adequate food, medical treatment, and even compassion (M. Arole, Arole, R., 1999a; R. S. Arole, Arole, S. & Arole, R., 2010). The victims of this social injustice are kept far removed from development and the mainstream of society as a result of being ostracized by the community and often their own family. Poverty, illiteracy, unemployment, and poor self-esteem further aggravate the situation for these people and often give them a sense of hopelessness (M. Arole, Arole, R., 1999a). Another major consequence of this problem is that people with stigmatized diseases often tend to hide their maladies and signs of disease, impeding early diagnosis and treatment and further reducing their self-esteem (M. Arole, Arole, R., 1999a). They become publicly exposed only after disease progression begins to cause deformity and severe physical impairment (M. Arole, Arole, R., 1999a). This creates a vicious cycle which only enhances the fears in the community and deepens the ostracization of these people if nothing is done.

The participants of all four focus groups expressed keen awareness of the plight of people with stigmatized illnesses. They often relayed personal examples of the social and physical challenges of living with such ailments and the stories of others from their villages who faced unimaginable hardships and suffering. One participant in an older focus group recounted that “There is a fear that not only the patient will become stigmatized but the entire household may as well. They [the patient] may fear being kicked out of the house.” A younger participant noted the “some people

think it is a curse of God and there is no hope,” reflecting the lack of knowledge, superstitions, and misunderstanding that often surround these diseases in such villages. The participants relayed an abundance of tragic stories to demonstrate the effects of such stigmatization on the health and quality of life of these sufferers. One of the older participants described an incident in her village in which “one TB patient... was rejected by his own mother who feared that she would get TB if she touched him and he [eventually] died due to neglect.”

The situation in Jamkhed today is vastly different from what it was when the CRHP first became established. The participants were asked to estimate the percentage of their villages’ households that no longer practiced stigmatization of people with these illnesses and instead contributed positively to the rehabilitation process. In nearly all cases, from both the younger and older groups, the participants noted that 90% or more of their communities no longer subscribed to harmful superstitious beliefs and practices surrounding leprosy and TB. With HIV this figure dropped to an average of 70%, ranging from 50-90%. This is likely the result of HIV being a relatively new disease with a small prevalence in this area. The participants themselves described the process of their own abandonment of false beliefs surrounding these diseases, which ranged from as little as 4 month up to 3 years. Many of the younger participants had the distinct advantage of growing up with a trained VHW already active in their community, which facilitated this personal as well as community transformation. Most participants described the unique teaching styles of Drs. Raj and Mabelle Arole as playing a vital role in their own understanding of the consequences of stigmatization and the need to abandon such thinking. They described the love, support and encouragement they received from the CRHP training and field staff, particularly the Aroles, during their initial and ongoing training processes and how it strengthened their resolve and confidence to work for the poor and marginalized, especially women and people suffering from stigmatized illnesses.

Continuous, intensive, and community-wide efforts to promote culturally-sensitive health education through VHWs and community groups (e.g. Farmers' Clubs and Women's Groups) have dramatically improved the situation. The health education offered by the CRHP respects people's knowledge, beliefs, and sacred values while reframing these diseases in a more positive perspective with emphasis placed on treatability, prevention, and etiology. The VHWs were shown how to refocus the locus of control back to the patients rather than allowing sufferers to give in to hopelessness and despair while gradually succumbing to the effects of neglect and the disease process itself. One of the younger participants described her approach to reduce stigmatization in her community,

I learned about the importance of proper nutrition for people with TB, leprosy, HIV and I learned how to care for them as well. I teach this to the families and others in the village. The mobile health team who visits my village teaches me how to care for these people and... [we all] sit together for meals and tea to show others that they shouldn't fear. I teach people that TB is an airborne disease and I teach people how they can get infected and I explain to patients that they should cover their mouths when they cough.

Another technique used to disseminate accurate health knowledge about stigmatized diseases is the highly popular *Kalla Pathak* (communication group) which performs dramas and songs containing elements of health education.

On a more personal level, the participants described the immense value and importance of showing love and affection for people with stigmatized illnesses to help them recover and become rehabilitated. One of the younger participants described her approach, saying,

I often invite these patients to my house for food or tea and spend time with them in public and show love and affection for them so others will not fear and do likewise. I also give health education to everyone so they do not hold on to false superstitions that harm these patients.

Many of the participants simply stated that medicines are not enough for these patients, saying that above all "They need to be treated with good nutrition and love."

Empowerment through critical assessment and community organizing

An integral component of the VHW training program is teaching the health workers and members of the community groups a sustainable process of critical assessment of local health and development issues. In essence, it is a process of informed and professionally-facilitated community self-diagnosis. Consciousness-raising and enhancing people's understanding of the root causes of health and other social problems is a task the VHWs are well-positioned to implement. Among the biggest successes of the CRHP in Jamkhed has been a change in people's mind-set towards health prevention and promotion and the permeation of positive social values which have drastically reduced the occurrence and impact of caste and gender discrimination, stigmatization of leprosy, TB, HIV/AIDS, and fatalistic or hopeless attitudes that are so common among marginalized and poverty stricken populations (R. S. Arole, Arole, S. & Arole, R., 2010).

Every single focus group participant was able to provide examples to empirically demonstrate the outcome of this training component designed to instill a life-long process of critical assessment. For instance, one of the older participants stated that "Many people used to drink contaminated water from the river but I learned about the importance of clean drinking water and mobilized the village to petition the government [officials]... for a bore well, which we received." Another participant of a younger group described the changes taking place in her village,

Children used to die from measles and malnutrition and they had worms. But we learned about cleanliness, safe drinking water, sanitation [and the use of soak pits], and nutrition. We talked about these things in our villages and over time these problems became less. We also were taught about the harm of some superstitious practices and this too we began to change.

A similar representation of the organizing potential of these VHWs can be observed in the words of another younger focus group participant,

Because of this training I organized women's groups and the members were divided into committees for water and sanitation, care of tuberculosis and leprosy patients, and care of children under 3. I worked with them to make [everyone] aware of the problems facing the poor and low

caste and the need to work together, especially with those people and to help integrate them into the village community.

Such stories reflect an efficient and effective process of knowledge and skill transfer from the training center to the communities, driven largely by the VHWs and community groups. The active role of these stakeholders enables them to gain such a strong sense of ownership and pride in organizing health and development programs that help their villages overcome obstacles.

Motivation to serve

Focus group participants were asked to describe what motivates them to serve their communities as village health workers. In most cases, both younger and older participants began by describing the deep inspiration they received and continue to receive from Drs. Raj and Mabelle Arole, when she was alive, as well as Dr. Shobha Arole who joined the CRHP in 1989. These directors of the CRHP managed to inspire several generations of local women to stand up and take action for themselves and their communities against social injustice and the deprivation of knowledge and other vital resources. One of the younger participants commented that “Dr. Raj Arole motivates me to be a VHW. He has taught me how to keep people healthy so they don’t end up having to go to doctors and spend a lot of money. He encourages us to work for the community and to share all we learn. People now have a lot of respect for me and this gives me satisfaction.” Another participant in the same group responded with her own experience, saying that “Dr. Arole showed us how important it is to show love and affection for the poor and sick. Seeing people recover their health gives me much satisfaction,” reflecting the values-based training approach of the CRHP.

The participants further reflected on how the responsibility of being a VHW and the respect and support they receive from their communities as well as the CRHP gives them the energy and motivation to continue in this role as long as possible. One of the younger participants stated that “I

learned from Dr. Arole that we have a responsibility to share knowledge and that health is everyone's responsibility. People also look to me for guidance and support which motivates me to do this work." The profound sense of respect the participants receive as well as their own respect for the knowledge was a highly consistent theme in the responses across all groups. One of the younger participants noted the following, "I have been inspired by Dr. Shobha. We are so lucky to have been given this knowledge because unlike doctors we didn't have to spend so much money to receive it. We're proud of that knowledge and that's why we're working in the village and people respectfully call us doctors." Being referred to as "madam" or "doctor" in ones community was seen to be a very empowering phenomenon for the VHWs especially given the fact that many of these women were terribly mistreated, abused, and neglected earlier in life by the very same people who now turn to them for advice on important issues affecting households and the community as a whole. Serving as stable and committed community leaders and role models provides them the opportunity, awareness, and wisdom to make vast changes throughout these villages to improve the health conditions and quality of life, especially focusing on the most vulnerable sections of society. Furthermore, all of the focus group participants described have one or more roles or activities which they especially enjoyed and which provide them the most joy and satisfaction. Although all VHWs of Jamkhed are trained in a wide variety of topics and skills as described in table 3, the CRHP training staff members encourage each VHW to pursue and develop their interests in order to keep them active and engaged for long term.

Focus Group Location	CRHP compound, Jamkhed	CRHP compound, Jamkhed	CRHP compound, Jamkhed	CRHP compound, Jamkhed
Date of focus group	Jan 20, 2010	Jan 21, 2010	Jan 23, 2010	Jan 25, 2010
Participants (<i>n</i>)	5	5	4	4
Mean Ages (range)	62 (58-70)	31.2 (28-36)	53.8 (40-70)	33.3 (28-40)
Mean Work Experience (range)	31.4 yrs (27-34)	12.8 yrs (10-14)	26.3 yrs (23-30)	11.5 yrs (6-14)
Researchers Present (<i>n</i>)	2	2	2	2
CRHP Staff Present (<i>n</i>)	1	1	1	1

Knowledge Training	Basic understanding of the etiology, pathogenesis, symptoms, and treatment of common diseases (e.g. diarrhea, acute respiratory infection, measles, TB, leprosy, etc.).
	Appropriate use of effective local/traditional remedies
	Basic understanding of pregnancy and gestation, childbirth, women's health
	Child health and development
	Nutrition
	Understanding of the referral process and recognition of which cases to refer to the Mobile Health Team and when to request hospital transfer for urgent care
	Importance of sanitation and water for health
	Social analysis and the status of women, relevance to health
	Culture and traditions (good and harmful) and strategies for change
	Role and responsibility of government in health promotion and service provision
	Working with non-governmental organizations
Conceptual framework of health	
Skills Training	Critical and systematic analysis of situations as they arise
	Surveys, program monitoring and evaluation, disease surveillance
	Effective communication of health-related knowledge in the community
	Participatory methods including participatory rural appraisal (PRA) for community diagnosis
	Effective mobilization of the community to address pressing problems
	Income-generating activities to achieve self-dependence, economic empowerment, freedom from poverty

Personal Development	Reinforcing self-image, self-esteem, self-respect
	Self-confidence
	Speaking in groups and in public
	Effectively communicating ideas and personal experience
	Working with all segments of society
	Strengthening attitudes and values of service to community and volunteerism
	Working as a competent partner of the health team
	Leveraging resources from the government and private sectors to facilitate change and community empowerment
<i>Source:</i> (M. Arole, Arole, R., 1999b; R. S. Arole, Arole, S. & Arole, R., 2010)	

Discussion

Impressive strides have been made over the last several decades with regard to the status of women’s health. For instance, women’s average life expectancy has been increasing throughout the world - by over a decade, fertility rates have declined, and burdens associated with childbirth and childrearing have likewise diminished. Of course, great variability can be seen and in some cases a reversal of progress along geographic as well as social borders has taken place (Grown, Gupta, & Pande, 2005). Overall progress notwithstanding, the situation remains unacceptable and grim with half a million women, the vast majority residing in low-income countries, continuing to die each year due to preventable complications of pregnancy and childbirth (Grown et al., 2005). Persistent inequalities for women continue to perpetuate these health problems.

The third Millennium Development Goal seeks to achieve gender equality and the empowerment of women as a way of mitigating this tide of gender disparities in health and society. The proposed methods include direct health interventions to complement public policies and programs seeking to “build women’s capabilities, improve their access to economic and political opportunity, and guarantee their safety” (Grown et al., 2005). In their 2005 Lancet article, Grown et al. describe access to primary and secondary education for girls as a key method by which to achieve women’s empowerment, including improvements in health and reduction in inequality.

Other noted conditions identified as necessary for women's empowerment and gender equality include infrastructure improvements, particularly in transportation, water and sanitation, and greater economic opportunities in addition to more equitable legal/civil rights (Grown et al., 2005).

However, this begs the question of whether or not it is possible to enable major social and political reforms at the community and societal levels by first facilitating women's empowerment from the outset. As the preceding analysis has shown, the process of empowering people to take control over their health by facilitating their critical consciousness and fostering a space conducive for developing this sense of awareness is certainly a tangible and necessary goal if true sustainability is the intended outcome.

The study presented here provides some evidence that a multi-faceted approach to empowerment, focusing on women as agents of change and transformation, at least in the context of this study, is associated with a cascading effect to positively influence larger structural and environmental changes at different levels of social organization. Further research will be necessary to elaborate on the causal nature of this relationship. The VHWs of Jamkhed who participated in this study reveal a remarkable personal transformation and its consequent manifestation in dramatic health and quality of life improvements that have taken place in these rural Indian communities. This was achieved relatively quickly by an NGO with minimal resources and technical infrastructure, thus indicating the cost-effectiveness and feasibility of such programs.

For this study, we chose to focus specifically on those VHWs who appeared to attain a very high level of empowerment and possessed a facility to describe the transformational process they underwent, as identified by the staff of the CRHP. This was done in order to better understand the processes that led them in that direction. The analysis of the focus group discussions as well as a review of the training materials provided by the CRHP indicates that empowerment doesn't take

place in stages but rather represents a continuum through which people are able reach for their fullest potential. Thus, while some of the VHWs may be better able to describe this transformational process compared to others, they've all nonetheless made significant contributions to improving the health and quality of life in their communities as indicated by quantitative as well as qualitative measures.

The case study of Jamkhed presents a valuable opportunity for documenting and promoting best practices in the field of community-based primary health and development. This organization has demonstrated an uncanny ability to achieve and sustain the empowerment of people, especially women, as local change agents, role models, mentors and community leaders for almost four continuous decades of operation. In turn, this has translated into meaningful and long-term improvements in people's quality of life as well as measurable improvements in the overall health status within communities served by VHWs. The development of a "world training center" at Jamkhed has gradually brought this knowledge to community-based projects in dozens of countries and the training has been shown to be replicable and contextually adaptable to addressing a wide variety of health and development issues (Taylor-Ide, 2002). Thus, there is a need to better define the precise components of this training, particularly from the perspective of its immediate beneficiaries – the VHWs. Such steps are greatly needed to ensure that this training model can be systematically and efficiently implemented on a larger scale while preserving the quality and values upon which it was based. More directly, this information may prove most valuable for many community-based NGOs scattered throughout low and middle-income countries that are in constant search of best practices to improve the effectiveness of local health and development interventions.

Other success stories in the non-governmental sector can be found in other parts of the world where health and development programs choose to focus more on comprehensive and participatory approaches (Behdjat et al., 2009; Manderson & Mark, 1997). These strategies are designed to

inspire community stewardship and self-advocacy that enable people to analyze their own health problems and mobilize to find acceptable solutions, rather than accepting a set of technical skills and problem-based interventions from professionals. However, a fair number of community-based NGOs have also failed to achieve meaningful change and sustainability of health programs because they rely too heavily upon interventions or packages of trainings that are simply provided to community health workers as if they were static or objective consumers of health education.

The training provided by the Comprehensive Rural Health Project to local women is designed to develop and nurture their self-esteem, self-confidence and leadership qualities. These qualities are essential in order to transform these women into agents of change that serve as catalysts by mobilizing often fractured communities around their self-interests and beginning to achieve effective health behavior change including the reversal of seemingly engrained patterns of caste and gender discrimination still pervasive in much of rural India. The impact can be assessed in the words of the VHWs themselves as presented above. These achievements could not have been possible without several key features built into the structure of this training framework. The structure is one where training relates to learning as a continuous process in the everyday life experience of each VHW and in the communities where they carry out their responsibilities. Of great importance to the success of this model is the division between formal training offered at the Jamkhed training center and the active and experiential learning of the VHWs, which is extremely porous and involves a field training component facilitated by the mobile health team. The longitudinal input of new knowledge and skills becomes integrated and reframed by the active learning process that VHWs constantly apply and which provides them with continuous feedback used to refine their practice. In addition, the peer learning process and the community learning and action cycles serve fundamental roles in allowing the VHWs to take ownership of this scientifically-

based information and to utilize it in a way that is most effective for them and their communities. In essence, the brilliance of what Drs. Raj and Mabelle Arole accomplished was in the creation of a safe and supportive environment for the VHWs to learn from each other and from their experience in addition to learning from the experts or professionals.

The so-called empowerment constant, described in the theoretical framework, appears to reside within the creation of these semi-permeable membranes that separate learning and training, pre-structured and systematic curricula, and open-ended life experience. Despite all the changes that have taken place within and around the CRHP and Jamkhed over the last 40 years, this philosophy of training VHWs has remained stable and unvaried. Empowered and empowering learning, therefore, has many sites. Good training is one that helps to connect those sites. The empowerment process inherent within the Jamkhed Model appears to emphasize how learning flows within a highly integrated and multi-sectoral social network within these communities that get reinforced by the holistic nature of the comprehensive community-based primary health and development approach taken by the CRHP. The centrality of CRHP's core principles of equity, integration, and empowerment are perhaps best described by the Aroles themselves at the conclusion of their book, *Jamkhed: A Comprehensive Rural Health Project* (M. Arole, Arole, R., 1994):

Human beings, regardless of their station in life, have innate unlimited potential within themselves. People have been empowered through a process of discovery, experimentation, trial and error, rerouting when necessary, and by being non-dogmatic in sharing values and skills.... By gaining self-confidence and self-esteem, people realize they have the capacity within themselves to determine their own lives.... Only people empowered and empowering others for the common good can find and keep the respect, cooperation and peace so much needed in this world (pg. 252-4).

Results of this study can serve as formative research to guide the design of more rigorous evaluations seeking to provide a greater degree of evidence documenting and corroborating the extent to which these village health workers' verbal reports are indeed reflective of the actual impact of this empowerment process. Although self-reported information is always subjective and

prone to variable measures of validity and reliability, the nature of the focus group approach seeks to uncover the perceptions, attitudes, beliefs, and experiences of the participants. In fact, the consistency to which the participants of each group responded in a similar manner reflects a fairly high degree of reliability.

The participants in this study were carefully chosen based on their appraisal by the field and training staff of the CRHP who provided recommendations on which VHWs were living up to the fullest potential of the training and support being offered to them. Of course, this study design will not address the issue of why some VHWs may not be excelling in this role but that is a question to be answered by a different study. It should be noted that this study was limited by the lack of pre-testing of the focus group questions and themes although an alternative approach was used involving the expert assessment of the training and field staff members of the CRHP who provided invaluable input on the design of the research questions and themes to better align these within the context and cultural framework of Jamkhed. The inherent understanding and practical utilization of the concept of empowerment by these CRHP staff members enhances the validity of this study given their role in the creation of the research instruments, including the focus group guide, which as a consequence is predicted to be more closely aligned with this concept. The use of a translator likely resulted in the loss of some data given the difficulty of translating certain words and concepts from Marathi to English and vice versa. This limitation also created a barrier during the focus group between the interviewers and the participants. A relatively small sample size is another limitation although each VHW in the sample represented a unique village community and they spanned a wide range in terms of the CRHP's 38 year history of training VHWs in Jamkhed.

Further research is essential to better explicate the long-term outcomes of community-based health programs with community health worker (CHW) components. Unfortunately, the majority of

evaluations and research being conducted in this field tend to focus narrowly on program activities and short-term outcomes (Rosenthal, de Heer, Rush, & Holderby, 2008). In addition, many such programs currently being implemented are often tenuously funded and when they are, that funding tends to expire before any meaningful and long-lasting impact can be achieved (Rosenthal et al., 2008). Current evaluations of large-scale community-based health worker programs do provide some encouraging evidence documenting the effectiveness of these programs at meeting their set objectives (Berman, Gwatkin, & Burger, 1987). However, the quality of such programs tends to be highly variable and often inconsistent with substantial differences in levels of support, training, logistics, access to and availability of healthcare infrastructure, management, and supervision (Berman et al., 1987). As noted by Berman et al. (1987), “further development of these programs is needed to reinforce their successes and assure that they are adequately supported as an integral component of the basic health system” (pg, 443). Evaluations must therefore acknowledge and attempt to measure such important contextual variables if they are to truly capture the impact of these programs.

Dedication and Acknowledgements



This capstone project is dedicated to the life and work of Dr. Carl E. Taylor (1916-2010). Carl's prolific career in global health and the promotion of empowerment approaches within community-based primary health care programs has inspired multiple generations of students to take on some of the most pressing problems facing this world. I am proud to consider myself as one of those students. Despite the health circumstances during the last months of his life, Carl expressed enthusiasm to serve as the principle investigator and one of my advisors in this study. I will forever cherish the brief the time we spent together and will continue to honor his life through my own work to promote community-based primary health care.

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