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ORIGINAL PAPER

Profiles, Perceptions and Motivations of Community Health Workers of NGOs in a Border City of US-Mexico

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Abstract To analyze the profile, perceptions and motivations of Community Health Workers (CHWs) from non-governmental organizations (NGOs) in the border city of US-Mexico and to describe the type of community interventions they perform. we surveyed 121 CHWs from 9 NGOs participating in a monthly meeting between May and July of 2009. Each participating CHW answered a structured questionnaire. Furthermore, two focus groups were held, in which 10 and 8 CHWs participated, respectively. Qualitative and quantitative analyses were carried out on the data obtained. 70% of the CHWs had 9 years or less of formal education. With respect to community work, 61% volunteered between 1 and 5 h weekly; only 40% received some form of economic support. The most commonly reported activities were distribution of informational materials (59.5%) and promotion of health fairs (52.9%). Analysis of focus group discussions lead to the development of four conceptual categories: personal development, motivation, perception of their community participation and institutional relationship, some of the testimonies are "*…just because the people do not respond does not mean we give up. No, we must work, persist, promote and raise awareness of the people…*", "*…when they compensate us, it is not really a payment. We are there because we get results, we do it happily… It is voluntary…*" CHWs are an important human resource for communities. Institutions focusing on primary care should view these community players as social capital, which could improve the effectiveness of prevention strategies and achieve greater coverage of health services.

Keywords Community health workers · Health promotion · Community health services · Community health education · Promotoras

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Introduction

Historically, the role of the community health worker (CHW) has been to provide basic health services such as vaccinations or treatment of minor illnesses among populations who lack guaranteed medical attention [1]. CHWs emerged as a social entity in the 1960s in many countries as a community outreach strategy, and as a response to the difficulties health systems had in reaching marginalized communities [2]. The function of CHWs has not only been to provide medical attention to poor communities, but also to act as agents of social change, who help improve the unequal distribution of health resources and defend the rights of their communities [3, 4].

Interest in CHWs programs in developing countries became relevant in the 1990s in light of the Acquired Immunodeficiency Syndrome (AIDS) epidemic [3, 5], the resurgence of other infectious diseases and the inability of formal healthcare systems to provide adequate attention to people suffering from chronic diseases. Similarly, the growing emphasis on decentralization and collaboration with existing community organizations influenced the growing interest in CHWs, that has developed in the absence of compelling interest regarding its effects [1, 6, 7]. Some authors place particular emphasis on the CHWs are not the best solution to cover all the needs of the different healthcare systems, since one must consider the operating conditions in which interventions are carried out, as well as contextual factors of complex social and health systems [8].

Recent studies, have defined a CHW as any health worker who has no formal or professional education but has been trained to provide health related services [6], Furthermore, they are defined as members of the community who function as a liaison between users and providers of health services to promote healthy behaviors among underserved human groups [7, 9, 10]. The World Health Organization defines CHW as a member of the community where they work, who should be selected by the community and supported by the Health System, but not necessarily been considered as part of it, and have shorter training than professional workers [3].

In spite of how complex it is to make generalizations regarding the profile of the CHWs on an international level, the definition should work with the local social and cultural customs and laws to ensure they are accepted by the community [3]. CHWs, are cultural agents among healthcare systems and the communities with which they share ethnic, linguistic and socioeconomic characteristics and life experiences [11], and have a privileged understanding of the culture and strengths of the community settings in which they intervene [10].

Several educational interventions with the participation of CHWs have been carried out along the US-Mexican border [12–16] and focused on communities with low income, lack in preventive care, chronic degenerative disease (diabetes, cardiovascular disease) and environmental health. The CHWs in these interventions act as community educators and as a link between the federal/state governments and communities. In this region we found only one community health study in which the profile of the CHW is described in urban or rural zones [17].

Additionally, there are articles published on systematization of experiences, life histories and CHW testimonies [18–21], which reflect the personal background (family, migration, education), motivation and significant experiences surrounding community participation.

In Mexico health interventions by CHWs have not been closely analyzed. There is a significant gap in this field of social impact, and the CHW's role as liaison between organizations and the community needs review. Though the CHW's role as an agent of social change in the communities in which they work is increasingly recognized, even now in Mexico there are scant studies regarding their education and community work. This study, has the goal of describing the role of CHWs as protagonists in these community interventions, and will focus on the sociodemographic profile, training, perceptions and motivations regarding the activities they perform, as well as the relationships they maintain with the contracting organizations.

Materials and Methods

In this study we use multiple sources of information with the goal of triangulating testimonials [22], employing qualitative and quantitative research strategies. The protocol was approved by the Bioethics Committee of the Autonomous University of Baja California School of Medicine and Psychology. Each CHW gave informed consent and none refused to participate.

Study Population

The 2007 Directory of Non Governmental Organizations (NGOs) of Tijuana was used as the sampling frame of the study. This had 332 registered NGOs. Approximately 30% (100) were dedicated to some subject related to health promotion and education. Of these, we only found 10 NGOs (10%) whose intervention strategies involved Community Health Workers (CHWs). Between May and July 2009, we requested permission from the directors of these NGOs to conduct a survey. Permission was granted to conduct the surveys in monthly meetings they already had planned with the CHWs. In some cases the NGOs sent the survey to those CHWs who did not attend the monthly meeting, achieving a response from 121 CHWs. To organize the focus groups, at least 2 CHWs were selected per NGO (one recently contracted and one with broad experience) in order to record possible variations in perception and motivation regarding community participation.

Data Collection and Analysis

Quantitative strategy consisted of applying a questionnaire to CHWs with 40 questions with pre-coded responses organized in the following categories: (1) sociodemographics (age, sex, marital status, number of children, place of origin, employment status, family income and education); (2) education and experience as a CHW and (3) type of community work. The structured questionnaire was self-applied and took an average of 30 min to complete. Codification and analysis was performed on the statistical software SPSS v15.

For the qualitative strategy we conducted two focus groups with 8 and 10 CHWs, respectively, some of them had not previously met, and each session lasted an average of 2 1/2 h. Both sessions were directed by a psychologist, with a designated note taker, and the responsible investigator participated as an observer at the fringe of the discussion groups. The discussions were audio recorded, with prior informed consent of all participants. For the focus groups, a guide of prompting questions was developed to gather information regarding the CHWs' work as well as to investigate the perceptions of community involvement in the health field, with the following guiding sections: perception of community work, motivation to participate, self image, education/training and relationship with the NGO. Subsequently, the discussions were transcribed, and the resulting documents were reviewed by the principal investigator who codified line by line through content analysis. The resulting codes were grouped into general categories related to the central questions of the study, Atlas.ti 6 software was used.

Results

The present study obtained information from 9 of the 10 NGOs who utilize CHWs in their programs in Tijuana. The NGO not included in the study utilizes CHWs but do not conduct interventions in the local community (see Table 1).

The results of the survey gave relevant information on the profile of CHWs participating in NGOs in Tijuana, BC. Of the sociodemographic characteristics, 97% were female. The average age was 42.5 years (±12.23; range 17–83). 67% had a partner, either married or unmarried, with an average of 3 children (±2.29) per CHW. Average monthly family income was $400.00 US dollar. 68% had nine or fewer years of formal education. 78.5% reported being born outside of the region, but more than 70% mentioned residing in the region for 11–30 years. Regarding the type of employment, 49.6% had a formal or informal job, from this, 32% were working as CHW; 30% were independent merchant.

Regarding CHWs' access to health services, 43% reported having some type of public health insurance, from this proportion, 20% were enrolled in the Popular Insurance Mexican Government Program (Seguro Popular), 32% reported being uninsured, and 5% did not answer.

CHW Training

Concerning CHW development, 70% reported attending educational workshops once or twice per month. Furthermore, 21% of the CHWs obtained a Diploma of Education and Training for Community Health Workers offered by a prestigious local university, and 17% partially completed the same program. The participants mentioned having received training from their NGOs on the following important subjects: diabetes, obesity, high blood pressure, nutrition, reproductive health, STDs-HIV, tuberculosis, vision, domestic violence and lead poisoning.

Personal Development and Motivation

CHWs continuous training triggers profound changes in the self-esteem and life plans of participants, showed in the following quote:

> Well, I had to overcome myself as a barrier. Being a housewife, first thing I said was, "No, I can't." And then there were the insecurities, the fears, because one has to change a life habit…
> … I had only gone to elementary school—I took the CHW training [course] and obtained a Diploma and that's when I discovered that, we can go back to study and we can learn more…

Another participant did the following comment:

> …what I value most is what I've learned…because this has helped me to grow, to be a better person, to be consistent, because if I don't learn this, what am I going to teach the community? I need to be emotionally and physically stable in order to give my best.

The process of learning in CHW training implies a qualitative leap that ranges from the identification of

Table 1 Characteristics of the organizations studied

NGO	Areas of priority for health intervention	# of reported CHWs	# of surveyed CHWs	% of surveyed CHWs
A	Tuberculosis, sexual and reproductive health	30	25	83.3
B	Sexual and reproductive health	30	19	63.3
C	Blindness prevention: ophthalmology consult and surgery	35	20	57.1
D	Basic health and early detection of diabetes mellitus	16	10	62.5
E	Nutrition	44	17	42.5
F	Environmental health	10	7	70.0
G	Environmental health	15	10	66.6
H	Basic health and dental	11	5	45.4
I	Basic and Environmental health	35	8	22.8
Total CHWs		226	121	53.5

personal information needs, health services and educational opportunities to the visualization and understanding of collective, community needs. The following comment from one of the participants describes in detail the transformation process of the perception of personal needs related to health/illness within a family context to a more general perspective of community health:

> … I started as a CHW, because my mother is diabetic, hypertensive, and I wanted to be well educated about her health to help her, and my son as well, because, since we have a family history of this hereditary disease, I'm concerned with taking care of my family….

Community Interventions and Community Health Workers

With respect to community work, 61% of CHWs report volunteering 1 to 5 h per week; 40% had worked less than 1 to 2 years as a CHW, while a little more than 25% had more than 10 years of community participation.

The health subjects most frequently addressed by CHWs (see Table 2) were nutrition (46%) and family planning (38%), each CHW worked an average of 4 health problems and the activities most frequently engaged in were distribution of informational materials (59.5%) and promotion of health fairs (52.9%) (see Table 3). Each CHW conducted an average of 5 community activities.

Perceived Effect of Community Interventions

The community responds in different ways according to the subjects presented. In the following comment from one of the participants one can appreciate the level of commitment to achieving community participation from the point of view of collective benefit:

> …just because the people do not respond does not mean we give up. No, we must work, persist, promote and raise awareness of the people. This is our challenge, we have to fight, because these people become aware of what community work is, and it is of mutual benefit….

Community work in the vein of environmental health from the CHW's duty represents, in the words of one of them, the constant exercise of raising awareness in the face of repeated disinterest in the environment on the part of the community.

> …so, we work with…what is environmental health and ecology, and community participation, including this…it is more difficult to get support on ecological issues…it has been very difficult these past 5 years, inviting the community…giving all we can to improve our planet…
> The type of intervention promoted by the NGOs which include CHWs, and in which communities are more interested, is public welfare (health fairs, vaccinations, etc.), primarily through providing medical and educational services. The concept of health is assumed to be an offer of medical services, to which the community responds well, since private health services represent a significant cost for the people.

Table 2 Health subjects in which CHWs intervene

	n	%
Nutrition	55	45.5
Family planning	46	38.0
Domestic violence	46	38.0
High blood pressure	44	36.4
Diabetes	43	35.5
Environmental health	36	29.8
Cervical cancer	34	28.1
STDs-HIV	33	27.3
Breast cancer	29	24.0
Vision	24	19.8
Tuberculosis	16	13.2
Other	12	9.9
Total CHWs who answered this section	107	88.4

Table 3 Types of community interventions conducted by CHWs

Community activities	*n*	%
Distribute informational materials	72	59.5
Promote health fairs and conferences	64	52.9
Organize activities	54	44.6
Conduct home visits	52	43.0
Offer counseling	47	38.8
Refer patients	44	36.4
Participate in cleaning campaigns	37	30.6
Participate in vaccination drives	35	28.9
Take vital signs	34	28.1
Detect disease	29	24.0
Assist in medical consult	23	19.0
Teach educational seminars	22	18.2
Accompany individuals to instances	22	18.2
Acquire resources for community activities	22	18.2
Participate in research projects	19	15.7
Administer medications	18	14.9
Direct patient care	17	14.0
Other	13	10.7
Total CHWs that answered this section	110	90.9

…….going to a private doctor is expensive. So when health fairs are held, there is always a good community response, because a general practitioner goes…and it's not going to cost you anything, and it is going to help that person a lot…..

On the other hand, there is some criticism from the CHWs about the community response, whose attendance is predicated on availability of free health products and services, as seen in the following comments.

..…for example, in "Morita," which is where I live, they are spoiled. Their houses are constructed for free, they get free food, free medical services…people just show up and say, " my husband is out of work," and this, that and the other, and the medical consultation is "no charge," the medicine is "no charge," .

Community Health Workers' Ties to NGOs

With regard to supervision or accompaniment of CHWs by the NGO, 66% of the participants responded that they were always supervised in their community labors. For some, the institutional tie is horizontal, referring to a bond with the staff, reporting feeling like a family, in which permanent recognition of their work and particular contribution to the organization is given.

…we are like a family, because no one is greater than anyone else. We have always seen each other as equals…

There is a clear allusion to the empowerment of the "CHW" identity in the context of the institutional relationship.

…well, the important thing is that the NGO recognize our efforts, because we are the ones who bring them work, and they do recognize it, and as Emma says, they treat us like family, because they take care of us..

The permanence and continuity of CHWs within the NGOs appears to depend on the type of bond that is established. The sense of belonging promotes an attachment and a long-term commitment with the organization. One of the CHWs shared her feelings:

….I came back because I feel like they are my family. I feel like I am part of the institution…I have seen they worry, not only for the work, but for each one of us. For example, when someone dies we're all there like a family. I have lived that experience.

Another type of institutional relationship to which the CHWs refer, is vertical in which they are treated as employees:

……. I just feel like another one of the workers…

The institution's administration is described from what the CHWs know through their community outreach experience. Nevertheless, it appears there is no explicit knowledge of the institutional organization, but what seems clear for them is their employee status:

…and there are three missionary priests and three congregations of nuns that are our directors, and above them are our bosses whom we don't know, and who are Americans, and we have never known who they are. We know they live in the border area but we don't know who they are. But we have been here for 14 years……..I started as a volunteer…and after four months they offered me this job as CHW….so that's how I started as an employee…

Forms of Compensation

Organizations offer two types of compensation to CHWs for their community activities. 42% of the CHWs surveyed, receive economic compensation, which is perceived by the CHWs as insufficient, since sometimes it only covers transportation costs to the communities in which the health interventions were conducted, while 38% receive payment in kind (food stamps, food, medical consultation, medications, etc.):

…they provide to us medical services…if we need medication, and the NGO have it, they donate it to us…… they support us within their reach…

Also, regarding the types of material compensation another CHW commented:

….Every 15 days…they give us food and a $16.00 US dollars bonus….

With regard to economic compensation, we noticed that for some CHWs it is a stimulus in addition to material compensation. The monetary factor adds motivation toward community participation. The following comment is very illuminating in that respect:

…well we have a small economic compensation but…it is helpful, and besides, they always give us workshops, and holidays day off…they give us a lot of motivation. When we go to Tecate [another near border town] as CHWs, travel expenses are covered…."

Nevertheless, for other CHWs it is very clear that the monetary compensation is a fee necessary to cover the expenses involved in community work.

…when they compensate us, it's not really a payment. We are there because we get results, we do it happily… It is voluntary.

In addition to the above comment, for other CHWs it is clear that, due to the lack of economic compensation for their community participation, they find it necessary to reduce their involvement in search of other sources of income to fulfill their needs.

…Well, sometimes I think economic forces limit participation. There are situations in which, well… you have to get an outside employment…

Types of Institutional Recognition

Recognition of the work and contributions of CHWs by the NGOs in which they participate is important. Through group discussion, we identified three ways in which institutions recognize CHW work: Verbal appreciation from the staff, special events exclusively for the CHWs like short trips, parties and get-togethers (Mother's Day, Christmas, CHW day), etc. and free continuing education programs. One CHW noted:

…they give us, certificates of appreciation or diplomas…but I think that their simple 'thank you' is more important…for example, I have received hugs and congratulations from the director of the campaign so, for me that is more important than any paper……

The get-togethers and parties organized by the NGOs to recognize the contributions of the CHWs are described by them as encouragement and motivation to continue community work. Here are two quotes that illustrate this:

…In the clinic, for example, when it's Mother's Day, or any other important holiday, they organize a party and we all celebrate it…

Educational offerings that NGOs target to CHWs are viewed by some of them as part of the added value and recognition for their community contribution.

… they recognize our work by offering to us different workshops to improve our knowledge and self esteem, so we may continue improving as individuals, and helping the community…
…each day we learn…and we are strengthened, and, that is our compensation, being informed which neither money nor anything else can reward…

Discussion

This study provides basic elements to characterize the profile of Community Health Workers (CHWs), who work voluntarily, without pay and in conjunction with Non Governmental Organizations (NGOs) in the city of Tijuana, Mexico. It is worth mentioning that in the literature reviewed for this investigation only public health interventions by the CHWs were observed, and no national study describing CHW profile was found [23, 24]. With regard to the sociodemographic profile of the analyzed sample, we found that the average age of the CHW was similar to studies conducted in the US and other countries [5, 11, 25]. Another characteristic which coincided with the aforementioned literature was the sex of the CHWs, who were predominantly female. One should note that this predominance of females in community health promotion suggest the need to invest more in women as primary health workers in the world, as well as their inclusion into public health policy to promote their development as agents of social change [26].

With regards to education, more than two-thirds of the CHWs reported a very basic level of formal education (9 or fewer years). This was less than that documented by international studies [10, 11, 25, 27]. On the other hand, we found that two-thirds cohabitated. With regards to this aspect, Low et. al. reported that in one sample of 14 CHWs, 12 were married [28]. With respect to employment status of the CHWs, of the half that reported working without remuneration, a third admitted being employed by one of the NGOs participating in the study. This situation reflects the labor supply of CHWs within the context of this type of organization dedicated to health promotion. Likewise, in studies conducted in the US, a range of 14–35% of CHWs report being unremunerated workers of social organizations (also called "Non-profit," "community-based organizations" and "social advocacy organizations) [10, 11, 25].

Tijuana is a border city located between the US and Mexico with a large migrant population. The majority of the CHWs surveyed reported being born outside the region. In this sense the CHWs add personal resources in terms of cultural competency, defined by the US Department of Health and Human Services (2007) as "the ability of understanding and working within the context of the culture of the community being served" [11].

With respect to CHW access to health services, it is striking that one-third of the sample did not have access to health services at the time of the interview, which indicates a certain vulnerability with respect to their own medical attention, a paradoxical situation, given that the CHW acts as a liaison between healthcare providers and communities of scarce economic resources.

As for training related to health subjects, this is received through the NGOs in which they participate by periodic discussions or workshops. On this subject, various studies report similar results, asserting that the most common method of CHW development is on-the-job training [10, 11, 25, 29, 30]. Additionally, the predominant thematic axes, in training as well as community interventions, identified in this study were similar to other studies reviewed [1, 3, 5, 7, 10–13, 15, 16, 23, 24, 31, 32], though they reported finding more frequent CHW participation in campaigns for vaccination or cardiovascular disease, problems that, for the most part, are covered by national institutions of public health in Mexico. Among the activities most commonly carried out by the surveyed CHW and in other studies are: home visits, distribution of educational material, health education, development of community activities, provide or improve the treatment of disease, counseling, referral and reference. [3, 6, 7, 11] In the same way, the various interventions the sampled CHWs conduct coincide with other studies that mention that they are invested in the training of CHWs with a polyvalent focus and the goal of making community interventions more effective [5, 33].

As with other studies [2], a similar pattern of empowerment among CHWs through construction of this new identity was observed.

On the other hand, CHWs perceive a different response from the community according to the type of intervention, so much so that healthcare provisions (such as offering medical services) receive greater acceptance than the self-sustaining type (such as caring for the environment). This point differs from the results of Farquhar [33], in which the CHW is mentioned as agents who modify the paternalistic behaviors (education or intervention programs) toward self-sufficient attitudes [33].

Regarding compensation of CHWs by NGOs, it can be through food, medication or money, which was considered by CHWs as insufficient for the services rendered. This coincides with other studies [5, 27, 34] in which it was reported that one of the most unsatisfying aspects of work for CHWs was salary and benefits. For the CHW it was more important to feel recognized and valued by the NGO in which they participated, and one of the most highly valued incentives was verbal appreciation or social events planned for the CHWs. The most highly prized element for permanence and continuity in community work was continuing education provided by the organizations.

Finally, international studies—particularly those conducted in the US—show a clear tendency toward incorporation of the CHW into the health system through certification and standardization of the functions of these community health workers in the profession [29, 30, 35]. Meanwhile, in our country, in addition to the fact that the CHW is just emerging as a subject of study, it does not appear on the public policy agenda in the area of primary health care.

This study has various methodological limitations. First, it is a cross-sectional study with a non-randomized sample, though we achieved more than 50% of the entire population of CHWs reported by the NGOs. Second, the initial design of this study was simply a qualitative study to describe the profile and motivations of the CHW, but the opportunity arose to conduct a survey, triangulate [22] the information and obtain quantitative data to complement the sociodemographic and educational profile of the CHWs, as well as have more information regarding the type of interventions conducted by the CHW in their communities. Third, the assumptions made in this study were based on comparing these results with those of systematic reviews or intervention studies wherein they evaluated the efficacy of CHW actions and, finally, the analysis of work done by the CHW could have been better developed if the conceptual framework of Social Capital, [36, 37] wherein such facets as support networks, norms, confidence and reciprocity, had been considered.

Community Health Workers are an important human resource for communities, given that they intervene in health promotion and education. The institutions which focus on primary prevention and health care should begin to consider these community players as social capital. If more effort is directed toward their training and development, we would achieve greater coverage of health services, reduce the cost of intervention and allow us to be closer to the communities, all of which would improve the efficacy of health prevention strategies.

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