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Research Article

Strategic Evaluation of Community Health Activities: Case of the Parakou/N'Dali Health District

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Abstract

Community health is based on primary health care and all countries must respect these principles of actions community-based health. *Objective* is to assess the relevance of community health activities in the Parakou / N'Dali Health District (PNHD) in 2020. *Method:* It was an evaluative observational cross-sectional study with an analytical aim carried out from August to September 2020. It focused on the community volunteer, qualified community health workers, local elected officials and health professionals of PNHD. Assessment of the relevance of activities at the community were in three dimensions: the relevance of the activities, the adequacy of the profile of agents committed to this task and respect for the principles of community action. Overall relevancy assessment ruled according to the Varkevisser rating scale. *Results*: The relevance of community health activities in the PNHD is poor (69.0%). Community volunteer does not have an adequate profile to carry out community health activities in basis of Primary Health Care (76.6%) and the basic principles of community action were not respect for 43.0%. Associated factors with the relevance of the activities observed are age between 40 and 60 ($p < .01$), the gender of actors ($p=.035$). *Conclusion*: The community health activities carried out in the PNHD are globally not relevant as challenges persisted and required a great effort on human resources.

Keywords

Strategic Evaluation, Public Health Activities, Community Health, Community Relay, Benin

1. Introduction

Community health is an integral part of Public Health allowing the control of the health of communities from their own integration and active participation in health actions. Already in 1978, the full participation of the community in the multifaceted activities carried out with a view to improving health has become one of the pillars of the movement in favor of health for all [1]. Following the recommendations of the WHO, most countries have put in place community health policies [2]. These policies that involve the use of community health workers are useful in several areas including fight communicable and non-communicable diseases, especially in these historically crucial moments of the Covid-19 pandemic with the need for multisectoral collaboration to reduce inequalities and promote universal coverage of care and social protection through a genuine health approach in all policies [3, 4]. In Benin, efforts have been made to develop reference documents and training for community relays (CR: local name for community health workers) in all health districts [5]. The health

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center management committee (COGECS Comité de gestion du centre de santé in french) is the community participation structure provided for by health policies at the level of the health space. He is in contact with community relays joined by other community leaders [6]. Thus, these community relays carry out a minimum package of activities which includes interventions at the level of health facility (HF) and interventions at the community level. However, to be effective, community health action must be carried out in certain areas consistent with the components of primary health care (PHC) and in compliance with several principles such as community participation, empowerment and multisectorality. But despite this role attributed to these actors, we wonder if these actors have really taken the full measure of their responsibility. Are the community relays not content with a role of appendix of this hospital-centric system of management of diseases which exists in the country instead of being real health promoters' agents. Does this package of activities comply with the components of PHC as defined at Alma Ata? Do these actors have the right profile to cope with these activities? Are the principles of community action respected during these activities? It is to answer these concerns that this work is initiated with the objective of evaluating the relevance of community health activities in the PNHD in 2020.

2. Materials and Study Method

It was a cross-sectional observation study with an evaluative and analytical aim that takes place over the period from August 22 to September 18, 2020. It focused on qualified CR and qualified community health workers (qCHW), local elected officials and health professionals and local health administration officials who gave their informed consent to participate in the study. A simple random sampling was carried out for the RC and qCHW with a sampling fraction of 50%; health professionals, local elected officials from the localities of the PNHD had been the subject of an exhaustive census. The dependent variable of our study is the relevance of the activities measured by a synthetic index with three dimensions namely the relevance of the activities in relation to the components of the PHC, the respect of the principles of effectiveness of community action and the adequacy of the profile of the actors (CR or qCHW) according to them and in relation to the tasks to be carried out. For the first dimension, each actor is asked to say whether the actions carried out fall within one of the components of the PHC. For the second, each principle was exposed to each actor to ask him if it is respected in the actions carried out daily. The analysis of the relevance of the profile of the CR in the PNHD was made by asking the actors to propose a typical profile of the health actor at the community level given the role to be played; we judge that an actor considers that the current profile of the relays is relevant when he proposes a profile less than or equal to the current profile of the CR. An overall relevance score in percentage was calculated for each participating actor; the overall relevance characterized according to the Varkevissier scale [7], is considered good for a score greater than or equal to 80%. The independent variables were the categories of actors and their socio-demographic characteristics. The data collection was done by structured face-to-face individual interview with the actors based on a questionnaire. After collection, the data were entered and analyzed respectively using EPI DATA 3.1 and EPI INFO 7.2 software. The quantitative variables are expressed as a mean followed by their standard deviation when the distribution was normal and the proportions with their 95% confidence interval (CI) for the qualitative variables. The prevalence ratio (PR) was used as an association measure. A binary logistic regression model has been adjusted in a multivariate to identify the explanatory factors of this relevance. The difference was statistically significant for a p-value of less than 0.05. The necessary administrative approvals have been obtained at the level of the institutional pedagogical coordination of the National School of Epidemiology (ENATSE) of the University of Parakou and the office of the PNHD. The confidentiality of the data and the anonymity of the participants had been respected and their informed consent obtained before the start of the study.

3. Results

3.1. Characteristics of the Participants and the Perceived Relevance of Community Health Activities

At the end of the survey, 158 actors had participated, including 120 CR (75.9%), 16 health professionals (13.9%) and 22 administrative authorities and local elected officials (10.1%). The average age was 36.2 years ±12.1 years with extremes of 19 and 82. The age group 19 – 40 was the most represented (63.4%). The male sex predominated (76.6%). PHC-based activities were relevant according to 87.3% of the actors. The profile of the current CR was relevant according to 23.4% of them and the principles of Community action were respected for 57.0% of these actors. Community health activities were relevant in 69.0% (less than 80) so low according to the Varkevisser benchmark [7]. Table 1 below shows the distribution of actors according to their socio-demographic characteristics and the perceived relevance of community health activities in the PNHD in 2020.

3.2. Factors Associated with the Relevance of Community Health Activities in the PNHD

Among the socio-demographic characteristics described in the document, only the age and gender of the actors influenced the relevance of community health activities in the PNHD in bivariate and multivariate analysis by adjusting for the category of actors. Indeed, compared to actors under the age of 40, those with an age between 40 and under 60 are 3.6 times more likely to have conducted activities that are gener-

ally relevant and this statistically significantly ($p < .01$). Similarly, the fact of being female increases by 3.09 times and statistically significantly the relevant appreciation of community health activities (p=.035).

Table 1. *Descriptive characteristics of activities and actors Parakou-N 'Dali HD, n=158.*

	Frequency	
	Absolute	**Relative (%)**
Actors'age (years)		
19- less than 40	97	63.4
40- less than 60	55	34.8
60 and more	6	3.8
Actors 'categories		
Political and administrative authorities	22	13.9
Health workers	16	10.1
Community Relays	120	75.9
Actors 's gender		
Male	121	76.6
Female	37	23.4
Education level of actors		
Illiterate	14	8.9
Primairy	30	19.0
Secondary	89	56.3
Superior	25	15.8
Actors' occupation		
Artisan	19	12.0
State official and private employee	24	15.2
Cultivator	92	58.2
Shopkeeper	20	12.7
Others (Animator, Topographer)	3	1.9
Marital status		
Single, widow or divorced	13	8.2
Married	145	91.8
Religion		
Christian	69	43.67
Muslim	89	56.33
Primary health care centred activities		
Relevant	138	87.3
Not relevant	20	12.7
Respect of Community actions principles		
Yes	90	57.0

	Frequency	
	Absolute	**Relative (%)**
No	68	43.0
CR's profile		
Adequate	37	23.4
Not adequat	121	76.6
Overall relevancy of community health activities		
Good	109	69.0
Poor	49	31.0

Table 2. *Overall relevance of community health activities in the PNHD according to individual factors, n=158.*

	n_T	Relevance of community health activities in the NPHD = Good		Bivariate analyses			Multivariate Model		
		n	%	PR_{crud}	$CI_{95\%}$	p	Adjust-just-edPR	$CI_{95\%}$	p
Age (years)									
19 – less 40	97	37	38.1	1	-	-	1		
40 – less 60	55	10	18.2	2.78	1.25-6.17	0.012	3.55	1.41 – 8.95	< 0.01
60 and more	6	2	66.7	1.23	0.22-7.07	0.814	2.65	0.36 – 19.62	0.339
Gender									
Male	121	43	35.5	1			1		
Female	37	6	16.2	2.85	1.10 – 7.37	0.031	3.09	1.08 – 8.85	0.035
Marital status									
Married or in couple	145	46	31.7	1					
Sigle, widow or divorced	13	3	23.1	1.55	0.41 – 5.90	0.521			
Religion									
Christian	69	15	21.7	1					
Muslim	89	34	38.2	0.45	0.22 – 0.92	0.028			
Actors' Categories									
Community Relay	120	38	31.7	1			1		
Health workers	16	3	18.8	2.01	0.54 – 7.47	0.298	0.64	0.14 – 2.91	0.559
Political administrative authorities	22	8	36.4	0.81	0.31 – 2.10	0.666	0.50	0.16 – 1.61	0.247

R^2 Nagelkerke =.118; Hosmer and Lemeshow test not significant (p =.894) Sensibility 4.1% Specificity = 98.2%; PR = Prevalence Ratio

4. Discussion

This study allowed us to take a new look at the health system of Benin mainly in its community component. It seemed important to us to take this look to draw the attention of decision-makers to this often-neglected component in our countries. However, no lasting improvement in the health of populations is possible if actions continue to ignore this sector. But before proceeding to the analysis and interpretation of these results, it is important to draw the reader's attention to some limitations and biases of the study. Indeed, the rather low recruitment rate (57.5%) did not allow us to have a good power of our study to detect all the explanatory factors of the relevance of the activities. Similarly, this relatively high non-participation rate (42.5%) raises fears of a selection bias because nothing tells us that these non-respondents are not people with a particularly strong opinion for or against the organization of the health system at community level. Moreover, a social desirability bias cannot be excluded because the community relays, the centerpiece of the health system at community level, have early on seen themselves as having the appropriate or even essential profile for the job. Thirdly, there is a problem of insufficient operationalization of part of our dependent variable: the relevance of activities regarding the components of PHC. Indeed, for the measurement of this part, we were just satisfied with statements by the actors who had declared that in the community activities were carried out in connection with the components concerned due to lack of time and means of correct verification. However, in most cases, these were information, education and communication sessions related to the components concerned such as drinking water supply and basic sanitation measures, good food and nutritional conditions to name just a few aspects. Normally these statements should be classified in the first component relating to health education concerning the prevalent health problems as well as prevention and control measures. All these elements limit us in the desire to generalize our results to other health districts in Benin. However, the study made it possible to have results that are not lacking in interest. Indeed, with 11.8% of the variance explained (Nagelkerke R^2 =.118), the model adjusts the data quite well with a sensitivity of 4.1% and a specificity of 98.2%; in addition, the Hosmer and Lemeshow test is not significant (p=.894) showing that there is no difference between the proportions of predicted relevant activities and those observed.

4.1. The Relevance of PHC-Based Community Health Activities

Most of the actors (87.3%) considered that activities carried out in connection with the nine components of the PHC were relevant. This result is greatly overestimated for the two reasons raised above: the social desirability bias of community relays as well as the insufficient operationalization of this component of our dependent variable.

4.2. Relevance of the Current Profile of the CR or qCHW

In total, 23.4% of the actors believe that the current profile of the CR is relevant. This means that a good part of the CR even recognizes that they do not have the adequate profile to do the job. In a systematic review [8], the International Labor Organization (ILO) has classified CHWs into three main categories according to their basic level and training:- lay health workers who may or may not have basic reading skills [9, 10]; - level 1 para-professionals who have a post-secondary basic education level (Bac+) and for their initial training have received informal, short-term training; - and the para-professionals of level 2 are qCHWs who have a basic post-secondary level (Bac +) and who have received a long-term initial training in a recognized training institution. According to this classification, the CR of Benin belong to the first category. The national community health policy document [2] currently in force provides for the use of para-professional level 1 qCHWs but, in reality, these qCHWs do not exist in the field. This once again demonstrates the discrepancy between the texts and the good intentions of the rulers and the reality on the ground which ultimately shows the lack of political will to deal effectively with several important concerns of the population at the grassroots. Given the role of conductor that these agents are supposed to play by bringing together actors from the water and sanitation, environment and hygiene sectors, opinion and religious leaders, agriculture, and health actors to promote actions on social health determinants, we wonder if these profiles could really serve something.

4.3. Verification of Compliance with the Principles of Community Action

The basic principles of community action are empowerment, decentralization, community participation, intersectoral collaboration, integration of care services and partnership between local actors. Nearly 3/5 of the actors (57.0%) find that, on average or in a relevant way, the basic principles of community action are respected. The proportion found shows that the basic principles of Community action are respected on average. According to the literature review, a decentralization of health systems from the local level can allow local actors to have more freedom to express their need for health and find ways to improve it [11]. Improving the performance of CHWs can only begin with the integration of the community [12]. A strong cooperative relationship between the health system and the community is very important. Also, the community may need to establish specific structures to highlight its problems and needs and make a planning considering the degrees of priority. This cooperation can revitalize the PHC management process. Moreover, multisectorality must be privileged in

order to hope for long-term positive effects [3, 13]. All the actors involved in community health actions have a role to play to revitalize health actions at community level. First, it is necessary to leave aside the routine and reduce the weight of the administration in the management of the programs. Health professionals have an important role in the design of programs in consultation with the populations, instead of the traditional vertical approach. No community health action can be effective without respect for the principles of community action. These are principles that form the basis of community health. However, the low level and the inadequacy of the profile of current community health workers in the health system of Benin does not allow them to be up to the implementation of actions in compliance with these principles. It is therefore logical that these principles are not respected.

4.4. Overall Assessment of the Relevance of Community Health Activities in the PNHD in 2020

The overall assessment of the relevance of community health activities in the PNHD revealed that 69.0% of our stakeholders find that community health activities in the PNHD are relevant. After having decided on the Varkevisser scale, in general, taking into account that this proportion is greatly overestimated for reasons indicated above, we can conclude that in the ZSPN the overall relevance of community health activities is "low" because these activities, implemented by actors with inadequate profiles according to themselves and without respect for the principles of community action, are not very relevant compared to the components of PHC. We could not find a similar study that carried out a overall assessment of community health activities elsewhere.

Explanatory factors of the relevance of community health activities in the PNHD in 2020 The factors associated with the relevance of community health activities are age and gender; indeed, the actors of a mature age between 40 and 60 are still active and probably more experienced and this can justify the fact that they have found that community health activities are relevant. As for sex, we do not have an explanation for the fact that it is women who perceive relevant activities much more than men.

4.5. Implications for Actions

Following the results of this study, it should be emphasized that the current CR are not the most suitable to occupy roles as we see and that our study reports. A reflection of the actors around repositioning of community health to develop a better profile of these community health workers (CHWs) is to be hoped. The current CR must be repositioned in their fundamental role of accompanying communities for their empowerment and facilitating the work of CHWs for community involvement. To do this, we need female people and a certain mature age to conduct these processes.

5. Conclusion

There is therefore a problem of discrepancy between the roles of community health actors as conceived since the Alma Ata conference and the reality of this community health practice by these same actors. At the end of our study, an overview emerges of the relevance of community health activities in the PNHD. From the results, we can conclude that overall, the relevance of community health activities in the PNHD is low with the existence of many challenges related to the fact that the basic principles of community action are poorly respected on average and that the CRs do not have an adequate profile to carry out community activities even if they think otherwise. A reflection by all the actors is necessary for a better repositioning of community health in our countries in Africa.

Abbreviations

COGECS	Health Center Management Commettee ‘ComitE De Gestion Du Centre De SantE’ In French
CR	Community Relay
PNHD	Parakou / N'Dali Health District
qCHW	Qualified Community Health Workers
PHC	Primary Health Care

Author Contributions

Amoussou-Guenou Gwladys Tatiana: Conceptualization, Methodology, Investigation, Funding acquisition, Data curation, Writing – original draft

Agonnoudé Togbédji Maurice: Conceptualization, Methodology, Data collection and analysis supervision, Software, Writing – original draft, Paper writing and editing and References searching

Houéto Sègbegnon David: Conceptualization, Methodology, Project administration, Writing – review & editing Supervision of all the process

Conflicts of Interests

The authors declare no conflicts of interest.

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