ORIGINAL ARTICLE

Taking on the Challenge: A Case Study on a Community Health Club for Noncommunicable Disease Control

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ABSTRACT

Background. From 2013 to 2021, the University of the Philippines Community Health and Development Program (UP CHDP) was in partnership with Cavite and its five municipalities of Alfonso, Mendez, Indang, General Emilio Aguinaldo, and Amadeo (AMIGA). They aimed to improve the control of hypertension and diabetes through interventions such as the organization of community health clubs, as recommended by the Department of Health in 2016. Currently there is limited information on the experiences and outcomes related to this strategy. Data on this can help the community and public health institutions in understanding and maximizing the benefits of organizing community health clubs for noncommunicable disease control.

Objectives. This study aimed to determine a community health club's membership profile, its organization and maintenance processes, and the benefits, challenges, and enabling factors experienced.

Methods. This case study-mixed method was done in 2020 on the Challengers Health Club in Alfonso, Cavite. Group interviews of the club officers and barangay health workers were conducted to explore the club processes, their perceived benefits, challenges, and enabling factors. Health records were reviewed to determine the club's membership profile.

Results. The community health club showed an increase in membership since it was established. Most members are elderly, female, non-smoker, and hypertensive. There was increase in proportion of members with controlled hypertension after two years. However, this was not observed among those with diabetes. Perceived benefits for members were free, regular, and accessible services, improved knowledge and better control of their condition, and opportunity to socialize with others. Enabling factors were partnership with UP, teamwork and dedication of club leaders, effective management, and community support. The limited funding and supply of medicines, discontinuation of deployment of UP partners, and the COVID-19 pandemic were the challenges identified by the club.

Conclusion. This study described the experiences of a community health club established to control hypertension and diabetes. Benefits of this intervention were reported despite the challenges they encountered because of the support mechanisms that were in place.

Keywords: community health club, hypertension and diabetes, non-communicable disease, case study

Poster presented

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INTRODUCTION

Cardiovascular diseases (CVDs) are the number one cause of death globally. The World Health Organization (WHO) estimated 17.9 million people died due to CVDs in 2019 which accounts for 32% of all global deaths.[1] In the Philippines, cardiovascular diseases such as ischemic heart diseases, cerebrovascular diseases, and hypertensive diseases are among the top 10 causes of mortality as of October 2022.[2]

Two types of interventions were identified by the WHO to address this public health problem. First, individual level interventions like focusing on preventing heart attack and stroke among those with high cardiovascular risk or secondary prevention among those with established disease such as diabetes. Second, population-wide interventions such as institutionalizing comprehensive tobacco control policies, and taxation to reduce intake of foods that are high in fat, sugar, and salt.[1]

Locally, the Department of Health (DOH) recognized the need for local communities to establish integrated and comprehensive response to address the country's public health concern.[3] Since 2011, the DOH provided guidance on addressing the problems related to CVDs. For instance, Administrative Orders were issued such as the *National Policy on Strengthening the Prevention and Control of Chronic Lifestyle Related Non-Communicable Diseases* (DOH AO 2011-003) and the *Implementing Guidelines on the Institutionalization of Philippine Package of Essential NCD Interventions* (PhilPEN) on the *Integrated Management of Hypertension and Diabetes for Primary Health Care Facilities* (DOH AO 2012 – 0029) to facilitate implementation of public health programs.[4] By 2016, the *Implementing Guidelines on the Organization of Health Clubs for Patients with Hypertension and Diabetes in Health Facilities* (DOH AO 2016 – 0014) was released to strengthen the fight against NCDs at the primary health facilities, specifically the health centers and barangay health stations.[5]

The University of the Philippines Community Health and Development Program (UP CHDP) is the unit mandated to enter into partnerships with communities to set-up and maintain community-based health programs that will support both the community and the university's objectives. In 2013, the UP CHDP signed a Memorandum of Agreement with the provincial government of Cavite and its five municipalities, namely, Alfonso, Mendez, Indang, General Emilio Aguinaldo, and Amadeo, which comprise the AMIGA inter-local government unit Collaboration Council. This partnership agreed to improve the control of hypertension and diabetes in the identified communities through various strategies including the establishment and organization of community health clubs. One of the bases for and guideline for the implementation of this strategy with AMIGA was the aforementioned DOH AO 2016 – 0014.

At present, there is limited information on the status of implementation of the guidelines on the organization of health clubs in the country as well as its effects in controlling hypertension and diabetes. Data on this intervention can help the community and public health institutions in understanding and maximizing the benefits of organization of community health clubs in noncommunicable disease control.

This research focused on a community health club established for the control of hypertension and diabetes in the municipality of Alfonso which is part of AMIGA. The study determined the community health club's profile and the control of hypertension, diabetes, and smoking among its members. The club's organization and maintenance processes, and the perceived benefits, challenges, and enabling factors by its leaders were also explored.

MATERIALS AND METHODS

This is a case study that used mixed methods in the collection, analysis and integration of data (Figure 1).[6] It was done in 2020 on the Challengers Health Club established in Alfonso, Cavite during the partnership between AMIGA and UP CHDP.

Alfonso is a first class municipality in Cavite, with a population of 59,306 based on the 2020 census. It is an agricultural community developing into an agro-tourism area. The town is served by one Rural Health Unit and 26 barangay health stations (BHS). One of the 32 barangays of Alfonso is Matagbak 1, a rural barangay with a population of 1,940 in 2020 census. It is where the Challengers Health Club was established in 2016. The barangay health team consists of seven barangay health workers (BHWs), one barangay nutrition scholar and is headed by a nurse deployed under the DOH Nursing Deployment Program.

Data collection in this study included two parts. The first was the qualitative component of the study consisting of group interviews of current and past officers of the club since 2016 and all BHWs of Matagbak 1. After coordinating with the municipal health officer of Alfonso, all the past and current officers of the health club, and Matagbak 1 BHWs were all invited to meet with two research assistants to explain about the study. Informed consent was gathered from those willing to participate and the schedules for the group interview were determined.

The interview tool was a semi-structured questionnaire created by the research team based on the DOH AO 2016 – 0014. Questions explored the health club's experiences related to the organization, maintenance, monitoring, and evaluation of the program. Perceptions of the group on benefits, challenges, and enabling factors for the club were also gathered. The group interviews were conducted in Filipino by two research assistants, both health professionals with work experience in community-based work. The interviews were audio recorded, transcribed verbatim, and translated to English.

The second part was the quantitative component of the study. It was a review of club members' individual treatment

records (ITR) filed at the BHS to determine the health club's membership profile on its first two years. To do this, attendance sheets during the club days held on the1st month, 3rd month, 6th month, 1st year, and 2nd year of establishment were retrieved. Based on these, all ITRs of listed members were gathered. Data about the members' age and sex, smoking status, presence or absence of hypertension and/or diabetes, and their control status were collected based on the information documented in the ITR. Only data from members with available ITR at the BHS were included in the study.

For the analysis of group interviews results, thematic analysis was done by the data manager and primary author. It is a method for identifying, analyzing and reporting patterns within data.[7] Familiarization with the data was done first by repeated reading of the group interviews transcribed in Filipino. Coding of responses was done manually and independently by the data manager and primary author. Deductive analysis was done to identify themes and subthemes thru consensus-building. This method resulted to understanding the health club's experiences in terms of organization, maintenance, monitoring and evaluation processes, and the perceived benefits, challenges, and enablers.

For data derived from review of ITRs, descriptive statistics are presented to describe the membership profile of the health club during its first two years. Data on age is presented in means. While qualitative variables such as sex and hypertension or diabetes control status are presented as counts and proportions. Inferential analysis was not done due to limited sample size.

Ethics Statement

The study was approved by the University of the Philippines Manila Research Ethics Board (UPMREB 2020-256-01).

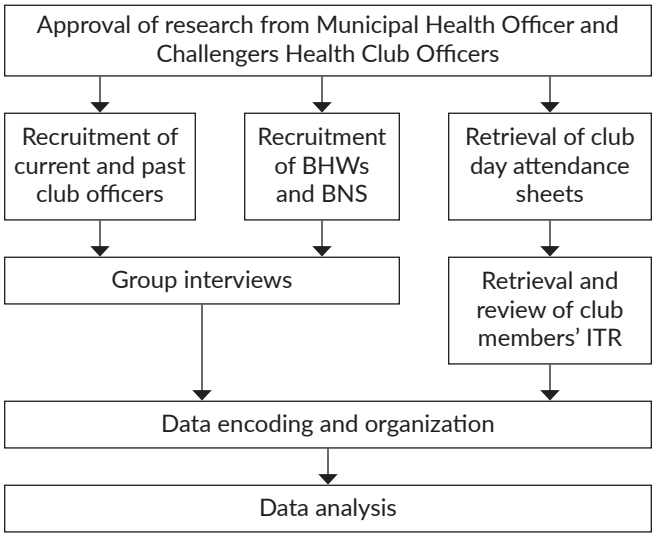

Figure 1. Flowchart of Research Methodology.

Table 1. Themes Gathered from the Group Interviews on the Experiences of Challengers Health Club

Theme 1: Organizational and maintenance processes
• Establishing the health club
• Enrollment of members
• Club activities
• Assignment of responsibilities to club officers
Theme 2: Benefits of health club membership
• Free, regular and accessible health services
• Control of hypertension and diabetes
• Improved understanding about condition
• Opportunity to socialize
Theme 3: Challenges experienced
• Limited funding
• Irregular supply of medicines
• Discontinuation of UP deployment
• COVID-19 pandemic
Theme 4: Enabling factors
• Assistance from UP
• Teamwork and dedication to the club
• Processes for club management
• Support from local community

RESULTS

Three group interviews were conducted, with an average duration of one hour per session. The first two were participated by seven health club officers, with two serving also as BHWs and one BNS in Matagbak 1. Five other BHWs participated in the group interviews. The third interview was a follow-up to clarify points raised in the first round. Three club officers and two BHWs participated, all of them were present during the first round of group interviews. Deductive thematic analysis was done to gain better understanding on the club's organizational and maintenance processes, perceived benefits of members, challenges experienced, and the enabling factors (Table 1).

Organizational and maintenance processes

Establishing the Health Club

The Challengers Health Club was established in October 2016 as part of the programs of the Rural Health Unit (RHU) with the objective of improving access to health services and medicines to control hypertension and diabetes in the community. In addition, the BHWs, felt obliged to organize one in their barangay because of the UP CHDP medical interns assigned to their area.

> *"I attended a meeting together with barangay health workers from other villages where UP interns are deployed. After the other participants presented their health clubs, our municipal health officer told us to have a similar program and also establish a health club in our village." (female, 61 years old, club president)*

The BHWs primarily took charge of organizing the club. They met with the Senior Citizens Organization of the village to discuss the program. This organization was engaged first because the elderly members of the community are considered high-risk of having hypertension and diabetes.

UP CHDP also helped in initiating the club. They informed the community about hypertension and diabetes, the advantages of organizing patients with such conditions, and explained the process they can follow to form the club based on the guidelines given by the DOH.

> *"The UP (medical) intern together with their community organizer attended the meeting (with the Senior Citizens Organization). They gave a lecture on hypertension and diabetes, made flyers about hypertension and diabetes. These were distributed to community members…This was how our monthly check-up of patients started." (female, 61 years old, club president)*

To continue setting-up the club, the president of the Senior Citizens Organization was requested by the BHWs to lead the club supported by the health team. He agreed and became president of the club for two years. During that period, they came up with the name "Challengers Health Club," created their logo and agreed on their vision, mission, and guidelines for the organization.

> *"The name "challengers" refers to us…We are challenged because we need to have proper diet, we need to exercise, and we need to take our medicines. There are challenges in our lives as hypertensives and diabetics." (female, 61 years old, club president)*

Enrollment of Members

The BHWs implemented risk assessment and screening using PhilPEN among community members who are 25 years old and above. Those identified to have (or at-risk of having) hypertension and diabetes were encouraged to participate in the monthly club day to undergo a more thorough medical assessment.

First time attendees of the club day were interviewed to gather personal information as well as clinical and medical data. If they are interested to join the club, they accomplished the membership form and given an identification card. A monthly contribution of PhP20 per member was requested, though not strictly enforced.

Club Activities

The Challengers club day was held every 2nd Friday of the month at the Senior Citizens Hall located in the village. Club days start with group exercise and health education conducted by the assigned health worker. They also recite together the club's vision and mission as part of the program.

The next part of the club day consists of health assessment of the members conducted by the BHWs, medical interns, and doctors assigned in the barangay.

> *"Each member has his own envelope of treatment records. When they attend the club day, they are registered and given their envelope. Their height, weight and blood pressure are measured and recorded. Their CBG is also taken if requested. They then wait for their turn for medical consultation. After their record has been updated, they proceed to medication dispensing." (female, 75 years old, club treasurer)*

The officers and BHWs also conducted regular assessment and planning to ensure the smooth flow of activities during the club day.

> *"It took us some time to study the process flow for the club day. At first it was difficult because we were disorganized … So after every club day, we would meet and evaluate which processes require revision. We continued doing that until the process flow was organized." (female, 61 years old, club president)*

> *"We set another day to prepare for the next health club. Briefing is done so that by Friday (during club day), we are all ready. We have our own assignments and that is why we have an organized club day. Over time, the members got used to the process and so everyone knows what to do, unlike when we started this." (male, 72 years old, club vice president)*

At the end of the year, the club would have their planning workshop to create their action plan which serve as the overall guide for the club for the coming year. Fund-raising events organized by the club was part of their action plan. These, together with the monthly contribution from the members, were spent to procure additional medicines for the members since supply from the RHU was not regular.

> *"We have an action plan to follow. We create that every December so that by January of the following year, we already have a guide. We include in the action plan our fundraising events held twice a year. Half of the raised funds is meant for our anniversary celebration and the other half is added to our operating budget." (female, 61 years old, club president)*

> *"That is the purpose of our monthly contributions of PhP20. In case we do not have enough supply of medicines, we can buy using our own funds. We do not let our supplies run out for the consultation days." (female, 60 years old, club public relations officer)*

The club also used this money to fund special activities such as the club's anniversary celebration and team-building events.

> *"During our anniversary we make sure that we do something new. One time we made a gallery of the club's accomplishments. Last year, we put up posters about hypertension and diabetes to reinforce*

our members' knowledge about these conditions. We also invited guests from the DOH regional office, rural health unit, and municipal officials. We also raffled out prizes like electric fans and grocery items. We celebrate our anniversary as thanksgiving for we have sustained this club for years." (female, 61 years old, club president)

"The first team-building we had was to promote camaraderie among the leaders. Aside from that we also gained insights from the games like how to persevere as a group despite the challenges." (female, 68 years old, BHW)

Assignment of Responsibilities to Club Officers

The officers explained that they have clear responsibilities in the health club which helped them to be efficient and organized. Some of the roles described included that of the club president, also a BHW, was in-charge of getting their supply of medicines from the rural health unit. On the other hand, the club secretary was tasked to record the minutes of their meeting, check the attendance of members in club days and assist in collecting the monthly contributions from the members.

"Every quarter, our treasurer presents a financial report to our members during the club day. That is to inform them that we follow a system in the club." (female, 61 years old, club president)

"Each of us BHW has a task for the club day. Some are assigned to measure the blood pressure and some are assigned to measure the weight. Our club members tell us that they are happy with the event because the services are free and near their homes." (female, 62, BHW)

"We take turns in conducting health education during club days. Before the lectures were done by UP interns, but we realized that we need to learn how to do it since the partnership will end eventually." (female, 61, club president)

Benefits of Health Club Membership

Free health services regularly provided to members of the health club was the most recognized benefit. Being able to receive quality care from health professionals and get free maintenance medications, without the need to travel far, helped the members in managing their conditions, most especially those who cannot afford to pay.

"The benefits are substantial, especially for the poor…I am poor and I do not have money to buy my medicines. So when I attend the health club day, I look forward to receiving my medicines… That is why being part of the health club is such a big help to us." (female, 62 years old, purok coordinator)

"Being able to monitor my condition is a big help…in private clinics, the doctor will see you only for a few minutes, write down the prescription, and then send you home or to the laboratory. But during club days, the UP doctors are very good to us, they explain our condition very well and what we should do for our hypertension and diabetes." (male, 72 years old, club vice president)

"We have seen them (the members) to have controlled their blood pressure and blood sugar because they are able to monitor their health conditions." (female, 61 years old, club president)

The officers also mentioned that members of the health club are able to control their hypertension and/or diabetes. There was improvement of knowledge and understanding among club members about their condition.

"The members became aware about hypertension and diabetes. They now understand that these conditions should not be dismissed. They are now more in control of their health." (female, 61 years old, club president)

The club day also provided the attendees an opportunity to become active and socialize with other community members.

"There is also the part of being able to socialize, we can see how excited they are, especially the older members. They enjoyed attending the club days." (female, 60 years old, club public relations officer)

Challenges Experienced by the Health Club

One challenge encountered by the club was the absence of funds at the beginning of the project. Without funding, the club is dependent on the supplies that they receive from the RHU which is not always enough for all the members.

Another challenge was the irregular supply of maintenance medicines from the RHU. The club aims to provide its members medicines enough for one month. Though they are able to use the club's funds to augment this, it becomes difficult when supplies are low in consecutive months.

"There were several months that we had to buy medicines from our funds, we spent more than PhP30,000. It was very challenging because it is difficult to hold our club days if there are no medicines that we can give to the members. We were worried because we spent almost all our funds." (female, 61 years old, club president)

When the deployment of UP interns to the barangay was discontinued, it also became a challenge for the club. Aside from asking for assistance from UP interns deployed to other barangays, they also revised some consultation procedures during club days.

"Our municipal health officer cannot attend all health club activities. So it was also a challenge for us on who can do the check-ups when UP interns were not deployed…so our barangay nurse conducted the check-up. Those with controlled conditions were given their maintenance medicines. Those with high blood pressure or blood sugar were referred to the rural health unit to be seen by the doctor. Even with such adjustment, many of our members continued to attend." (female, 61 years old, club president)

The COVID-19 pandemic was considered the biggest challenge faced by the health club because they are unable to gather for the club day.

"Because of the restrictions, we are not able to hold the club day anymore. We cannot monitor the conditions of our members and they need to buy their own medicines. Each one is left on his own." (female, 61 years old, club president)

"At this time of the pandemic, health clubs like ours need to be supported by the DOH because this is also their program. They are not supplying enough medicines, it is like they are focused only on COVID-19. They have left out programs on NCDs. But it is risky to have hypertension and diabetes at this time, right? These are reasons for complications when you get the (COVID-19) infection." (female, 68 years old, BHW)

Enabling Factors for the Health Club

The officers recognized how the UP team assisted the health club. They explained how UP helped in establishing and strengthening the organization aside from providing health services during health club days.

"We received a lot of support from UP…While they were here, we became fully aware of our roles in the club. They helped us in creating our mission, vision, and club logo…We were able to do strategic planning. All the things that we have learned from them, we continue to apply in our club even if they have left us already." (female, 61 years old, club president)

The teamwork and dedication of club leaders and members were important in sustaining the health club.

"I would like to add that the teamwork shown by the officers helped our club. It is actually expected that they will have disagreements at some point, but they were able to resolve conflicts within the group." (female, 68 years old, BHW)

"Having dedicated members and leaders is also important because we do not receive salary for what we do. You need to have dedication because from the beginning we know that this will require our services to make it stable and sustainable." (female, 61 years old, club president)

"Even before the deployment of UP interns ended for our barangay, we thought of ways on how to keep our health club running. We revised some of our processes…For myself, I worked hard to train and pass the certification as a pharmacy assistant even at my age. Because I want to make sure someone is qualified to dispense medicines to our members during club days." (female, 61 years old, club president)

The officers also pointed out management processes that helped the club achieve its purpose.

"We do regular evaluation of our club processes. We have assigned specific roles to the officers and BHWs. We planned for those assignments and we saw good results. Our officers have team building activities every second quarter of the year…to promote good relationship and camaraderie. We also include leadership training for the officers so that we can learn how to overcome trials as a group." (female, 61 years old, club president)

The health club also received support from different members of the local community, namely the Rural Health Unit and the barangay members.

"The municipal health officer facilitated our partnership with UP by assigning interns to our barangay. They also provided us with medicines especially when they have enough supply in the RHU. Because they know that we have a lot of members who participate in the club day, they set aside medicines for us." (female, 61 years old, club president)

Table 2. Number of Available Individual Treatment Records (ITR) of Challengers Health Club Members at the start, 3rd month, 6th month, 1st year and 2nd year of the Health Club

	Start	3rd month	6th month	1st year	2nd year
Number of recorded club members	50	53	59	83	79
ITRs retrieved	40	53	50	72	61
% of ITRs retrieved	80%	100%	85%	87%	77%

Challengers Club Membership Profile

The health club's membership profile and the health status of its members were determined. Five collection points were identified from the time when the club started, then on the 3rd month, 6th month, 1st year, and 2nd year. Attendance sheets for the corresponding club days were retrieved. Not all individual treatment records were available at the BHS. Forty out of 50 (80%) members listed at the beginning of the health club have available ITRs, 50 out of 59 (85%) for those enlisted in the 6th month, 72 out of 83 (87%) for those in the 1st year, and 61 out of 79 (77%) for those in the 2nd year. All ITRs were available for members registered at the 3rd month (Table 2).

The club started with 50 members in 2016. Membership increased for the next two years with the highest observed one year after its establishment (Table 2).

The members' age range from 28 to 79 years old, with most members belonging to the 60-69 years old age group. Majority of members are female (80% at the beginning, 70% at 3rd, 6th and 12th months and 69% at 2nd year of the health club) (Table 3).

During the initiation of the club, 82.5% of their members were hypertensive while 25% have diabetes. Two years after its establishment, all members are diagnosed with hypertension while 31% are with diabetes. Only a small percent of club members are current smokers, noted at 2.5% when the club was started and 6.6% at the second year of establishment (Table 4).

The proportion of club members with controlled hypertension increased from 72.7% at the beginning of the club to 83.6% by its second year, except during the third month of club implementation when it was lower at 54.4%. On the other hand, the proportion of club members with controlled diabetes decreased from 60% during the start of the club to 42.1% by its second year. The proportion of members with controlled diabetes was lowest on the 3rd month of club implementation at 28.6% with 42.8% of the diabetic members with unknown sugar control (Table 5).

DISCUSSION

The literature on the utilization of the community health club (CHC) approach demonstrated its positive impact on health issues such as water, sanitation and hygiene (WASH), tuberculosis control, and promoting breastfeeding, among others. This approach leverages on the influence of peer groups and encourages community cohesion. Participatory health education techniques are facilitated by community

Table 3. Age and Sex Distribution of Challengers Health Club Members at the start, 3rd month, 6th month, 1st year and 2nd year of Club Establishment

Characteristics	Start		3rd month		6th month		1st year		2nd year	
	No.	%	No.	%	No.	%	No.	%	No.	%
Age										
50 and below	2	5	3	5.6	3	6	4	5.6	6	9.8
50-59	4	10	9	17	9	18	13	18.1	9	14.8
60-69	23	57.5	25	47.2	24	48	34	47.2	27	44.3
70-79	11	27.5	9	17	8	16	10	13.8	13	21.3
80 and above	0	0	7	13.2	6	12	11	15.3	6	9.8
Average ± SD	64.88 ± 9.32		65.66 ± 11.1		64.98 ± 10.48		65.67 ± 11.42		63.95 ± 10.43	
Range	28 - 79		37 - 86		37 - 86		35 - 91		37 - 83	
Sex										
Male	8	20	16	30.2	15	30	22	30.6	19	31.2
Female	32	80	37	69.8	35	70	50	69.4	42	68.8

Table 4. Health Profile of Challengers Health Club Members at the start, 3rd month, 6th month, 1st year and 2nd year of Club Establishment

Characteristics	Start		3rd month		6th month		1st year		2nd year	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hypertension/Diabetes										
No hypertension and no diabetes	6	15	5	9.4	0	0	7	9.7	0	0
With hypertension only	24	60	34	64.2	33	66	45	62.5	42	68.8
With diabetes only	1	2.5	2	3.8	2	4	7	9.7	0	0
With both hypertension and diabetes	9	22.5	12	22.6	15	30	13	18.1	19	31.2
Smoking Status										
Non-smoker	35	87.5	48	90.6	48	96	60	83.3	55	90.2
Current smoker	1	2.5	3	5.6	2	4	4	5.6	4	6.6
Unknown	4	10	2	3.7	0	0	8	11.1	2	3.2

Table 5. Comparison of Hypertension and Diabetes Control Rates of Challengers Health Club members at the start, 3rd month, 6th month, 1st year and 2nd year of club establishment

Characteristics	Start		3rd month		6th month		1st year		2nd year	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hypertension Status										
Controlled	24	72.7	25	54.4	36	75	45	77.6	51	83.6
Uncontrolled	9	27.3	21	45.6	12	25	13	22.4	10	16.4
Diabetes Status										
Controlled	6	60	4	28.6	6	35.3	10	47.6	8	42.1
Uncontrolled	4	40	4	28.6	6	35.3	9	42.9	11	57.9
Unknown	0	0	6	42.8	5	29.4	2	9.5	0	0

health workers who were initially trained on providing health education and primary care services.[8] In addition, CHCs do not only improve health outcomes by providing culturally-sensitive health information, but also builds the organizational and capacity skills of the community towards self-initiated development. [9]

The guidelines provided by the DOH on the organization of health clubs for NCD control does not include specific points on community engagement. However, the values and processes applied by UP CHDP reflected activities that are aligned with the pillars of success for CHCs. These four key elements as described by Azurduy et al.[10] were (1) emphasis on community priorities, (2) integration with existing community organizational structures, (3) staff and organizational commitment to community development approach with emphasis on empowerment and building local capacity, and (4) strong coordination with the formal health sector. Emphasis given by the UP CHDP on the organizational development of the Challengers Health Club showed that academic institutions can contribute to community health interventions not only through health service provision but by assisting in capacity-building of community organizations.

Given the parallelism between the CHC approach and that employed in the establishment of Challengers Health Club, similarities in their outcomes are expected to be comparable as well. Increased knowledge and behavior change among CHC members have been reported as outcomes from studies on this approach. These were stated as benefits by the Challengers Health Club officers. Another positive outcome of the CHC approach described was the increased participation of community members in the formal health sector. Though not measured quantitatively in the study, club officers reported appreciation of the club members of the availability of free and accessible health services from the RHU through the Challengers Health Club. This benefit for club members is important since medication unavailability and cost of antihypertensives were found to be reasons for poor adherence in the country.[11,12]

Puoane et al.[13] described the development of a health club in the township of Khayelitsha in Cape Town which focused on increasing awareness about NCDs and implementing interventions for primary prevention. The club is named "Masiphakame ngempilo yethu" which means "let us stand up for our health." There were similarities observed between the Challengers Health Club and the Masiphakame Club.[13, 14]

In terms of membership, majority of the club members are more than 60 years old and female. This is probably because hypertension and diabetes are health concerns more common among older age groups therefore promoting their interest and participation in this intervention. Health education and physical activity sessions were also noted to be core activities during their club meetings which were facilitated by trained community health workers. This highlights the important role of community health workers in facilitating the CHC approach.[10,13-15]

Important management processes highlighted by the Challengers club officers were assessment and planning regularly done by the group. By building the club leaders' capacity to perform actively these functions, community ownership of the program is strengthened as evidenced by the commitment and dedication of the club leaders and community support they received.[10–12]

Among the challenges described by the health club in Cape Town is the slow growth of its membership. They reported only 22 regular members out of the 76 participants initially recruited. This was attributed to the constant movement of people in the area. However for Challengers Health Club, there was noted increase in club membership over the span of two years. This difference can be attributed to the Challengers Health Club being established in a rural community as oppose to Cape Town which is urban.[9]

The challenges brought by the COVID-19 pandemic were emphasized by the Challengers Club. A global survey by the WHO showed that the pandemic severely disrupted prevention and treatment for NCDs. The reasons most commonly cited were cancellations of planned treatments, closure of population-based screening programs, decrease in public transport availability, and lack of staff because of health workers reassignment. These reflected the insights collected from the group interviews.[13–20]

Based on the nationwide survey conducted in 2012 to 2013, hypertension prevalence among Filipinos was 28%

with BP control rate of 20%.[21] On the other hand, diabetes prevalence is estimated to be at 7.1% of adults between 20-79 years old in 2021.[22] Control rates among Challengers Health Club members were found to be higher which shows the importance of utilizing focused community-based interventions when targeting chronic and lifestyle diseases such as hypertension and diabetes.

Limitations of the Study

This research is a case study on the Challengers Health Club during its first two years of implementation. This constrains the generalizability of the results. If studied at a longer timeframe, findings may also be different from this study. The validity of the results may have been limited by the data collection method since this can be affected by recall and observer biases. Information collected was also restricted by the availability of the members' ITR in the health station. This in turn limited the application of inferential analysis, which could have given a better picture of the club's outcome. Lastly, the use of aggregate data as a measure of the outcome of club membership may not necessarily be reflected if analyzed at the individual level.

CONCLUSIONS AND RECOMMENDATIONS

This study is about a community health club established for the control of hypertension and diabetes. The health club's profile showed an increase in membership during its first two years. Majority of its members are elderly, female, non-smoker, and hypertensive only. The proportion of members with controlled hypertension increased from the time the club started until after two years. However, this was not observed among those with diabetes.

Essential processes described by the club officers included its establishment, enrollment of members, conduct of club activities, and understanding the roles and responsibilities of the officers. Perceived benefits of club membership were free, regular, and accessible services, improvement of knowledge and understanding of club members about their condition, better control of their diseases, and the opportunity to be active and socialize with other members. These benefits most likely contributed to the increase in membership of the club. Enabling factors for the club were partnership with UP, teamwork and dedication of club leaders, development of management processes, and community support. On the other hand, the challenges encountered were funding, limited supply of medicines, discontinuation of deployment of UP partners, and the COVID-19 pandemic.

This study provided insights on the application of the community health club approach to control hypertension and diabetes. Benefits of the approach were reported; nevertheless, given the challenges pointed out, support mechanisms must be in place to enable sustainability of the community health club's efforts to overcome the challenges they may experience.

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Statement of Authorship

Both authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

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