

Original research

Co-developing a community health worker-led hypertension control intervention in Peru through a human-centered design approach

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ABSTRACT

Objective. To define the essential content and design elements for hypertension support delivered by community health workers (CHWs) in Puno, Peru, aligned with the HEARTS Initiative.

Methods. We applied a human-centered design approach to co-create strategies for a CHW-led hypertension intervention through five interactive workshops with 24 CHWs, 32 healthcare workers (doctors, nurses, and administrators), and 18 community members with hypertension.

Results. We identified five key recommendations on the objectives and needs of a CHW-led hypertension support program. First, improve patient-level health behaviors. CHWs can encourage heart-healthy diets, exercise, medication adherence in tandem with traditional remedies, and regular care-seeking through home-based behavioral education tailored to the local context. Second, improve facility-level hypertension care. CHWs can fill care gaps due to physician shortages, complicated healthcare systems, complex scheduling procedures, and language differences, while fostering more respectful healthcare. Third, link CHWs to the formal health system. Joint training, monthly meetings, and improved communication with formal healthcare providers can enhance CHW integration in the healthcare system and reduce concerns about CHWs overstepping their role in patient care. Fourth, train and equip CHWs. CHWs require training on hypertension and their roles in healthcare delivery, as well as compensation, appropriate and sufficient materials, and transportation assistance. Fifth, design educational materials on hypertension. Culturally relevant, pictorial materials with accessible language and regular content updates help engage patients.

Conclusions. The human-centered design process enabled co-development of a culturally responsive, CHW-led hypertension support intervention that operationalizes HEARTS principles.

Keywords: User-centered design; hypertension; community health workers; delivery of health care; patient participation; Peru.

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Despite the availability of effective treatments for hypertension, a substantial treatment gap persists: many individuals, particularly in low- and middle-income countries, are not accessing or adhering to evidence-based interventions (1, 2). This gap in uptake and sustained use of care contributes to high rates of uncontrolled high blood pressure, preventable cardiovascular events, and premature mortality (3). In Peru, an estimated 57–67% of adults with hypertension are undiagnosed. Among those diagnosed, 95% do not achieve blood pressure control (4, 5). The challenge is especially acute in rural and high-altitude regions such as Puno, where geographic barriers, workforce shortages, and language differences between healthcare providers and patients further limit care access and effectiveness (1, 2, 6).

Closing this gap requires implementation strategies that are not only effective but also scalable and cost-efficient. The HEARTS Initiative of the Pan American Health Organization (PAHO) and World Health Organization (WHO) offers a framework for strengthening hypertension control in primary care through standardized treatment protocols, team-based care, and provision of lifestyle counseling and essential medications (7). Community health workers (CHWs), who are trusted members of the communities they serve, are a promising resource for implementing HEARTS principles to strengthen and extend hypertension services in resource-constrained settings (8, 9). CHWs have been successfully deployed in maternal and child health and infectious disease programs (10). However, their role in supporting chronic disease management, such as hypertension, is underused and underexplored (11). To maximize their impact, CHW interventions must be carefully designed to respond to local social and cultural contexts and system constraints, while recognizing traditional knowledge.

A growing number of methods exist for designing implementation strategies, ranging from theory-driven approaches to participatory models. Among these methods, human-centered design offers a flexible, iterative, and community-engaged framework for developing contextually appropriate strategies (12). Human-centered design prioritizes the insights and lived experiences of end-users, helping to ensure that interventions are practical, acceptable, and sustainable (12). In this study, we used a human-centered design approach to co-create a CHW-led hypertension control intervention in Puno, Peru. The objective of our paper was to define essential content and design elements for CHW-delivered hypertension support to improve hypertension care, as supported by the HEARTS strategy.

Study site

Our study was conducted in Puno, Peru, a high-altitude region characterized by a rich indigenous Andean heritage. Over 70% of the community come from Quechua or Aymara backgrounds (13). About 58% of Puno's population lives in rural areas (13). Peru's health system consists of both public and private sectors. The Ministry of Health serves as the primary governing body responsible for public health policy, regulation, and service provision, which covers 67% of Puno's population (14). Regional health directorates oversee healthcare services in each region, including public hospitals and primary healthcare facilities. EsSalud, a separate government-run social security health system, provides healthcare services and insurance to formally

employed workers and their dependents (11% of Puno's population) (14). All medical care and medications provided through the Ministry of Health and EsSalud for their insured patients are free of charge. About 1 400 CHWs serve in the Puno region (15). CHWs in Puno focus mainly on maternal and child health and infectious diseases; they do not currently provide care for chronic noncommunicable diseases such as hypertension or diabetes.

ANDES trial

The human-centered design work described in this paper was conducted as part of the formative research phase of the Addressing Hypertension and Diabetes through Community-Engaged Systems (ANDES) trial (16). The ANDES effectiveness-implementation randomized controlled trial aims to improve the diagnosis, treatment, and control of hypertension in Puno. ANDES aims to evaluate the impact of a 12-month hypertension control program in which CHWs provide blood pressure monitoring, medication adherence support, and healthy lifestyle counseling through home visits to participants. Clinical effectiveness outcomes include mean change in systolic blood pressure (primary outcome), diastolic blood pressure, and hemoglobin A1c (HbA1C). Implementation outcomes include fidelity, reach, adoption, sustainability, acceptability, and cost-effectiveness. The human-centered design process was conducted to inform the design of the CHW intervention.

METHODS

Data collection

We applied a human-centered design approach to co-create solutions to optimize the content, design, and delivery of CHW-led hypertension support (17). Our human-centered design process was guided by a four-phased approach: discover, define, develop, and deliver (18). We drew on formative research from the ANDES trial (discover phase) (6) to specify the subsequent human-centered design questions (define phase). Our guiding questions considered how we might: (i) reduce barriers to maintaining engagement in hypertension care; (ii) facilitate adoption of healthy lifestyle behaviors; (iii) best organize and present the CHW manual; (iv) equip health professionals to best support patients with hypertension; (v) link CHWs to the formal healthcare system; and (vi) adequately train CHWs.

For the develop phase, we conducted five interactive human-centered design workshops between May and August 2022. Workshops were grouped by participant type: CHWs (24 participants), formal healthcare workers (doctors, nurses, and administrators) from the Puno Regional Health Directorate, (17 participants) and EsSalud (14 participants), urban patients with hypertension (nine participants), and rural patients with hypertension (nine participants).

Healthcare providers involved in hypertension care were referred by directors of local health networks across different areas of Puno. The Puno Regional Health Directorate selected the CHWs who participated in the workshops to include a range of ages, levels of experience, and programs on which they worked. CHWs subsequently invited community members with hypertension to participate in the workshops, ensuring a

mix of urban and rural participants as well as men and women of varying ages. Participants were not financially compensated for participation; refreshments were provided during the workshops and transportation assistance was offered when needed to reach the workshop venue.

The workshops lasted half a day to one day to accommodate participants' schedules and maximize engagement. The workshops were facilitated by a professional facilitator, three study investigators, and three study staff members trained in qualitative and participatory research. Activities varied across the workshops but were all grounded in empathy and imagination to elicit practical and creative suggestions for CHW-led hypertension support (12, 17, 19). Our approach incorporated iterative cycles and user-feedback loops both within and between workshops. Within the workshops, we synthesized and re-visited topics in small groups. Between workshops, the research team synthesized key findings and participant feedback to refine prototype materials and adapt the content and structure of activities for future workshops.

The CHW workshop included: developing intervention prototypes and a world café (20) to refine CHW materials; “bad brainstorming/good brainstorming” to identify ineffective and effective training approaches; a “wall, bird, social network” method to explore barriers and preferences for support; and storytelling for reflection and discussion. Community member workshops included: journey mapping of their experiences in seeking hypertension care; storytelling to explore social influences on treatment; intervention prototyping and a world café (20) to design behavior change materials; and visual storyboarding to capture preferences for interactions with CHWs. Workshops with healthcare workers included: ideal state mapping to identify pathways from current to healthier lifestyle behaviors; journey mapping of hypertension care within the health system; a four corners brainstorming activity to discuss responses to hypertension care statements; and intervention prototyping.

Data analysis

The results of the workshops were captured through written activity outputs from the interactive sessions and workshop notes recorded by study staff during the sessions. Notes and outcomes were translated into English by a study staff member (KCB). We analyzed the data using a two-phase approach. First, after each workshop, the facilitation team and researchers held debriefing sessions to reflect on key insights gathered during the workshops, as per human-centered design methodology (21). Insights were documented in summary notes highlighting key topics from each workshop. Second, we conducted inductive thematic analysis of workshop outputs, session notes, and debrief summaries using affinity mapping (22). Through iterative team discussions and review of the materials, we identified and refined emerging themes. We used a matrix framework analysis approach in Microsoft Excel to organize findings, documenting key ideas, patterns, and supporting evidence for each theme separately for each workshop. We synthesized findings within themes and compared themes across workshops to obtain in-depth insights.

The final co-designed CHW-led hypertension intervention is currently being tested in the ongoing ANDES trial (deliver phase) (ClinicalTrials.gov, ID: NCT05524987) (16).

Ethical review

The Universidad Peruana Cayetano Heredia in Lima, Peru Research Ethics Committee (277-27-21) reviewed and approved the study protocol. Approval was also obtained from the Johns Hopkins School of Public Health Institutional Review Board (IRB00296694) and the Washington University in St Louis Human Research Protections Office (202108158). All participants provided written informed consent before joining the study.

RESULTS

Through the human-centered design process, we identified the following key recommendations for how to optimize delivery of CHW hypertension support: (i) improving patient-level health behaviors; (ii) improving facility-level hypertension care; (iii) linking CHWs to the formal health system (iv) training and equipping CHWs; and (v) designing educational materials about hypertension.

Improving patient-level health behaviors

Participants drew on their lived experiences to identify key challenges related to hypertension management and to creatively imagine solutions that could be implemented by CHWs (Table 1). All participants expressed similar concerns about diet and alcohol use. While doctors emphasized the importance of increasing physical activity across all populations, CHWs and rural participants noted that regular walking and physically demanding fieldwork were already integral parts of daily life in rural areas. Compared with rural participants, urban participants were more knowledgeable about healthy behaviors and described creative ways that they were attempting to practice healthy behaviors. All the participants emphasized the importance of family support in patient care—empathizing with patients' social contexts and considering family-inclusive strategies to improve care. The participants with hypertension highlighted that some people felt a lack of control over meal choices in their homes, a viewpoint that neither CHWs nor doctors considered. Everyone acknowledged that fears about medication side-effects can reduce adherence, causing many patients to turn to trusted herbal or traditional remedies instead. While doctors were less receptive to traditional medicine, CHWs and urban participants with hypertension proposed complementary strategies that bridged biomedical and traditional approaches. Additionally, CHWs and participants with hypertension highlighted how deeply held religious beliefs shape care-seeking and medication use, an issue that doctors did not mention. They considered ways that CHWs could integrate faith into care strategies.

Improving facility-level hypertension care

Participants raised several system- and facility-level issues that CHWs could address to make hypertension care more welcoming, respectful, and responsive to the needs of patients (Table 1). CHWs and the participants with hypertension shared how experiences of disrespect at health facilities left many feeling invisible or unvalued, discouraging them from returning for care; doctors were largely unaware of this issue. While all

TABLE 1. Challenges and solutions identified for hypertension prevention and management related to healthy behaviors and health system issues

Target for change	Challenge	Potential solution to integrate into CHW intervention
Individual behaviors		
Nutrition	Lack of knowledge about healthy eating	Develop a healthy recipe book; support with interpretation of food labels.
	High cost of healthy food	Identify in-season, less expensive healthy options.
	Unhealthy cultural traditions	Encourage moderation and whole grain options (e.g., quinoa and sweet potatoes over white rice and potatoes).
	Belief that vegetables cause bloating	Explain that cooked vegetables are easier to digest. Encourage experimentation to choose most agreeable ones.
	High sodium intake	Encourage herbs as salt alternatives. Gradually reduce salt over time.
Exercise	High consumption of sugary drinks, low intake of water	Limit sugar in tea, coffee, and fruit juices. Emphasize importance of hydration with water. Provide recipes for natural drinks.
	Frequent preparation of food by family members	Engage other family members in CHW education.
	Perception that rural people who work in fields get sufficient exercise	Promote activities that increase heart rate. Promote exercise particularly for urban patients with hypertension.
	Lack of awareness about how to exercise	Provide exercise demonstrations. Promote walking, running, and local activities such as dance lessons.
Medication adherence	Difficulty obtaining medications	CHWs schedule appointments and deliver medications.
	Lack of knowledge about chronic medication use (fears of bodily harm over time, lack of awareness of reasons for taking medication even without symptoms)	Emphasize the safety and importance of taking medication consistently. Explain that hypertension is a silent killer. Highlight risks of stopping medications.
	Preference for herbal remedies or spiritual healing	Recommend taking prescribed medication alongside herbal remedies. Frame medication as complement to religion.
	Sharing of medication with family members	Explain that medications are tailored to individuals and sharing can be dangerous.
	Illiteracy and misunderstanding of doctor instructions	CHWs help patients read or re-write their prescriptions. Organize pills in a pillbox. Help patients formulate questions and contact the doctor.
	Forgetting	Engage family members to provide reminders. Use pillboxes and calendars as trackers.
	Fear of side-effects	Explain common side-effects and management of them. Provide counseling on when to consult a doctor for medication adjustments.
	Medication shortages	A system-level change is needed to improve quantity projections.
Alcohol reduction	Cultural alcohol consumption	Encourage moderation. Explain recommended alcohol maximums.
Attendance for regular check-ups with clinicians	Accessibility especially for older adults	Assist with identifying transportation options and family/community support. Connect patients to other social programs.
	Low health literacy	Develop culturally appropriate education with visual aids in local languages. Organize media campaigns and health fairs. Provide appointment-tracking tools, e.g., calendars.
Health system		
Patient trust	Patients lack trust in medical professionals from bad experiences	CHWs collaborate with a designated health system contact and relay patient concerns.
Continuity of care	Doctors do not speak local languages	CHWs bridge language gaps.
	Doctors perceive that patients want a fast check-up	CHWs encourage patients to voice expectations and ask questions of doctors.
	Frequent doctor turnover hinders continuity of patient care	CHWs facilitate transition of care to new doctors, given low CHW turnover.
System processes and procedures	A shortage of doctors exists	CHWs take over routine tasks with specific protocols.
	Referral process is complex and time-consuming	CHWs help patients navigate referral system, encourage follow through, and share patient information with referral doctors.
	Facility operation barriers exist (i.e., short operating hours, long waiting times)	CHWs offer flexible visit schedules aligned with patient availability.
	Inconsistent procedures across facilities create confusion	CHWs help patients navigate facility-specific processes.
	Appointment scheduling process is complicated and time-consuming	CHWs schedule appointments for patients through health-system contacts.

CHW: community health worker.

Source: Prepared by the authors based on the study findings.

participants agreed that patient follow-up was inadequate, doctors largely pointed to system barriers, whereas CHWs and participants with hypertension wanted more personal responsibility and attention from providers. The appointment scheduling system emerged as a shared frustration, seen by all as complicated and an impediment to care-seeking. Doctors

saw an opportunity for CHWs to bridge communication gaps by serving as translators; CHWs agreed but also hoped doctors would learn some of the local language as a gesture of respect. The participants with hypertension highlighted that CHWs could play a key role in making patients feel heard and improving their sense of well-being through personalized interactions.

Linking CHWs to the formal health system

CHWs said that they felt unseen and undervalued by doctors. While doctors acknowledged the potential of CHWs to improve hypertension care, many were concerned about blurred role boundaries. Neither doctors nor CHWs were aware of the other's perspective. EsSalud doctors, who had experience with home visits for elderly patients, tended to be more supportive of CHWs than their Ministry of Health counterparts.

CHWs offered thoughtful and practical ideas to strengthen collaboration with doctors. They emphasized the importance of fostering mutual respect through joint training and workshops, along with monthly meetings to discuss patient cases. CHWs suggested that doctors introduce them to patients and speak positively about their role to build trust and create stronger partnerships. All participants recognized the value of connecting CHWs with doctors, psychologists, and nutritionists to create a more holistic support system. Doctors highlighted the potential value of alliances between CHWs and local authorities, relevant nongovernmental organizations, and national social safety net programs including Pension 65 (elderly support) (23) and Vaso de Leche (nutritional support) (24) to better support patient well-being.

All participants saw CHWs as a vital bridge or intercultural interlocutor, offering trusted insights into patients' lives, strengthening follow-up, and helping patients make sense of complex treatment plans. At the same time, healthcare professionals raised some concerns about the readiness of the system for such a CHW-led intervention, given different patient entry points, uncertainty about insurance coverage for CHW services, and the risk of overwhelming already strained resources if CHWs refer more patients to the health system.

Training and equipping CHWs

All participants agreed that CHWs need training to support hypertension care. While doctors supported CHW training, some were hesitant about expanding training too much, fearing CHWs could overstep their roles in patient care. CHWs emphasized the need for monthly in-person sessions covering signs and consequences of hypertension, lifestyle counseling, mental health support, and strategies for handling challenging patient situations. CHWs noted that certificates would motivate and validate their efforts. They also highlighted the emotional toll of their work and the importance of receiving psychological support themselves. While doctors also acknowledged mental health as an issue for patients, they placed less emphasis on it than the CHWs. Doctors noted their own need for more training in hypertension management, which CHWs and the participants with hypertension had not realized.

CHWs were particularly attuned to the logistical and structural support required for a successful CHW program. They emphasized the need for transportation assistance, efficient methods for sharing patient information (such as addresses and health history), access to educational materials including videos, flyers, flipcharts, and glossaries of medical terms, and practical tools such as planners, pens, notebooks, and uniforms. Both CHWs and doctors viewed visual aids as essential bridges for communication during patient interactions. Lastly, everyone agreed that CHWs deserve meaningful support, such as compensation, coverage of transportation costs, and

public recognition; however, healthcare professionals were more aware of the funding hurdles involved.

Designing educational materials about hypertension

Several recommendations were made for creating educational materials that resonate with patients with hypertension and tools to enable CHWs to effectively deliver education that can inspire meaningful behavior change. All the participants emphasized the need for approachable language, clear definitions, and culturally relevant images. CHWs recommended a manual giving step-by-step guidance for home visits, including how to greet patients, key questions to ask, and how to tailor advice to local conditions. CHWs also suggested that a flipchart could help visits remain focused and engaging. To nurture ongoing interest, they stressed the importance of varying content across visits, covering new topics at each visit such as exercise demonstrations, and only revisiting previous content when necessary to reinforce understanding. CHWs suggested that updated counseling messages could be shared regularly with CHWs through text messages to keep their knowledge current and promote continued connection with their patients.

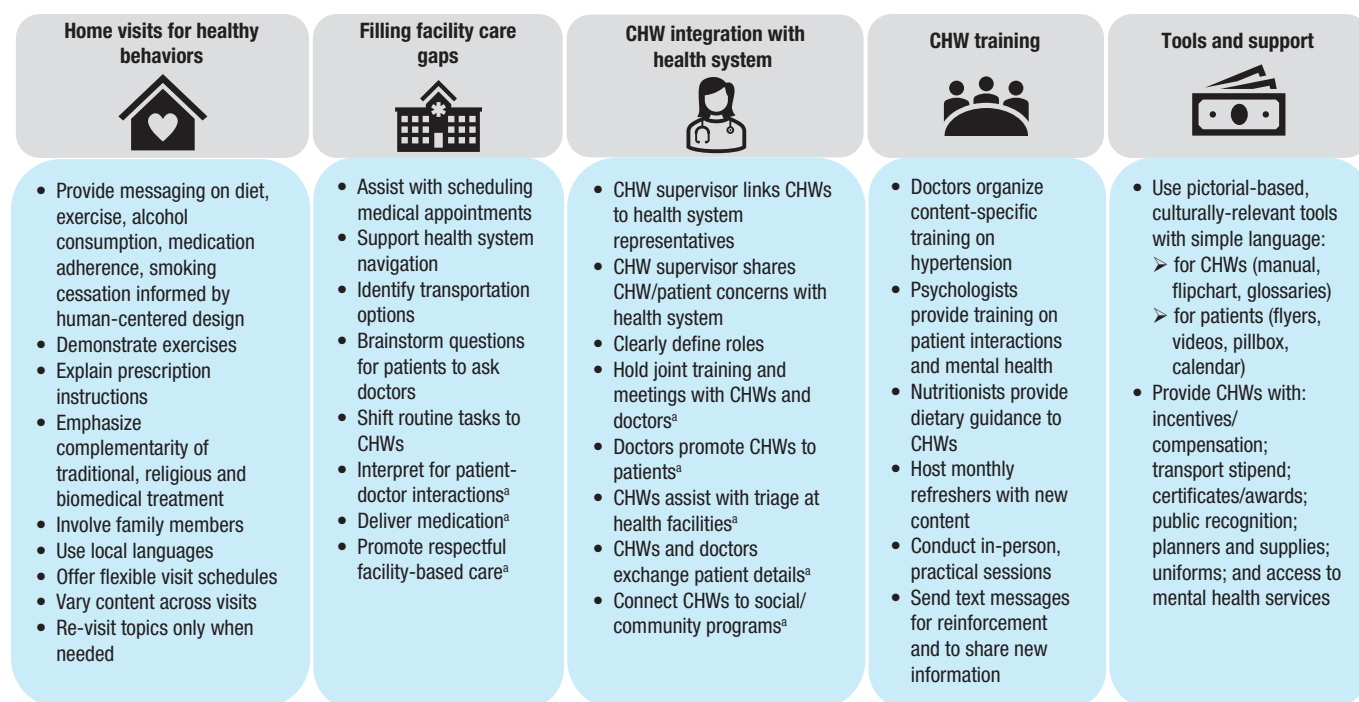
Integrating recommendations into a CHW-led hypertension intervention

We compiled the recommendations across the five themes to define important components for a CHW-led hypertension support program (Figure 1).

DISCUSSION

Through a human-centered design process based on the experiences of healthcare professionals, CHWs, and community members, we identified various challenges with hypertension care as well as opportunities for CHWs to address these issues. Our research generated creative, user-informed suggestions about messages CHWs could convey, supportive actions they could take, materials to enhance CHW-patient interactions, and strategies to effectively support and integrate CHWs within the health system, which can help advance implementation of HEARTS in the Americas (7).

Our findings demonstrate the important role that CHWs can play in facilitating continuity of care and addressing patient perceptions of disrespect and abuse by medical professionals. A 2021 study similarly found that CHWs could help community members get respectful care by educating CHWs on patient rights and utilizing their ties to the formal health system to ensure patients receive high-quality care (25). Additionally, our study found that CHWs play an important role in helping patients navigate the health system to obtain necessary care, which is consistent with the findings of a recent systematic review (11). Our formative research also demonstrates the importance of maintaining a strong link between CHWs and the formal healthcare system and of building health provider confidence in CHWs. This finding adds weight to a growing evidence that relationships between health providers and CHWs influence community perceptions of CHWs (26). For example, strong collaboration between public health officials and CHWs in Thailand increased community acceptance of the

FIGURE 1. Recommended components for a CHW-led hypertension support intervention based on human-centered design findings

CHW: community health worker.

^a Denotes recommendations that were not implemented in the ANDES intervention given legislative and logistical constraints.

Source: Prepared by the authors based on the study findings.

CHWs (27), while poor linkages between CHWs and the formal healthcare system in Uganda limited their ability to effectively engage with patients (28).

The suggestions that arose through our human-centered design process align with findings and recommendations from other research on essential components of CHW interventions. Remunerating CHWs and providing sufficient compensation for transportation have been previously highlighted as essential for successful CHW programs (29, 30). Although Peru recently expanded non-salary benefits for CHWs, such as bonuses and training opportunities, evidence of cost-effectiveness would likely be needed to change the current voluntary structure to full salaries (31). Sufficient training and support from doctors and gaining of patient trust have also been shown to be important (29, 30). Using simple, pictorial-based educational materials in the local language has also been shown to improve the acceptability of CHW education on hypertension, thereby supporting their effectiveness (32).

Many studies have demonstrated how human-centered design can lead to the design of more contextually appropriate health interventions across different settings and health conditions. For instance, research in Kenya (33), Malawi (34, 35), and Zambia (17) illustrates the effectiveness of human-centered design in creating interventions – ranging from noncommunicable disease care models to maternal health programs to HIV treatment support – that are both culturally relevant and effective. To our knowledge, our study is the first to apply human-centered design to the design of a CHW intervention for hypertension support. Our findings complement other

literature that highlights the value of human-centered design in creating user-centered interventions that are more likely to be effective in addressing complex challenges in healthcare delivery.

Strengths and limitations

By engaging with a range of local and national partners, we ensured that multiple perspectives were incorporated in the intervention design. The structured co-creation process facilitated the identification of key barriers to hypertension care and generated empathy-driven, imaginative solutions tailored to the Puno health system. Additionally, using interactive workshops promoted active participation and allowed for real-time refinement of ideas. The inclusion of formal health workers from different health systems (Ministry of Health, Puno Regional Health Directorate, and EsSalud) strengthened the study's applicability across multiple healthcare structures. Our study provides in-depth insights into the specific components of a CHW intervention, addressing a gap in the literature where most studies offer only a superficial overview of CHW activities.

Despite these strengths, the study had some limitations. The workshops were short in duration (half-day to one full day), which restricted deeper exploration of certain topics and limited iteration opportunities within groups. Additionally, power dynamics may have influenced discussions, with senior doctors possibly overshadowing contributions from junior doctors and more vocal participants shutting out quieter ones. To mitigate

this, we held separate workshops for doctors, community members with hypertension, and CHWs, and used small-group breakouts to encourage more balanced participation. Lastly, while the study identified important intervention components, the effectiveness, feasibility, and scalability of these recommendations require further testing and long-term evaluation.

Policy and program implications

Our findings highlight five core pillars that should be integrated into CHW programs for hypertension management: structured home visits; closing gaps in facility-based care; comprehensive CHW training; accessible educational tools accompanied by financial and logistical support for CHWs; and strong integration with the formal health system (Figure 1). Strengthening collaboration between CHWs and healthcare providers is essential for effective implementation. Joint trainings, regular communication, and shared patient information are important to foster mutual respect, clarify roles, and improve coordination of care. In addition, CHWs could help elevate patient concerns, such as experiences of disrespectful treatment, through appropriate channels while encouraging patients to communicate their needs within the health system. Establishing a CHW supervisor who serves as a liaison between CHWs and the health system may be a practical and efficient strategy for maintaining these connections. CHWs may also help bridge relationships between healthcare providers, patients, and traditional health systems, thereby supporting culturally responsive care.

CONCLUSION

The human-centered design process enabled us to co-develop a multifaceted CHW-led intervention for hypertension support, ensuring that it is culturally responsive and more likely to achieve positive health outcomes. This process also fostered collaboration among local partners, which will strengthen implementation of the trial intervention. The systematic documentation of our approach provides valuable insights for others looking to apply human-centered design in similar settings. Furthermore, the lessons learned about the essential components of the CHW hypertension intervention can be applied in other contexts and integrated into HEARTS implementation. This work adds to the growing body of evidence demonstrating that human-centered design is an important method for the design phase of public health interventions, which can ultimately lead to more effective, community-driven solutions.

Data availability: Data are available on request.

Author contributions: SMH, VGDR, WC, and EHG conceived the original idea. KNW, KCB, LJU, JTM, LF, JG, LKB, SMH,

VGDR, WC, and EHG designed the study. KCB, JTM, LCA, ZVC, GMCC, JCMV, and RH collected the data, supervised by KNW, LJU, LKB, LF, JG, SMH, VGDR, WC, and EHG. KNW, KCB, and LKB analyzed the data. KNW, KCB, and LKB wrote the original draft. All authors reviewed and approved the final version.

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Creación conjunta de una intervención de control de la hipertensión dirigida por agentes comunitarios de salud en Perú con un enfoque centrado en las personas

RESUMEN

Objetivo. Definir el contenido y los elementos de diseño esenciales para la atención de la hipertensión prestada por agentes comunitarios de salud en Puno (Perú), en consonancia con la iniciativa HEARTS.

Métodos. Adoptamos un enfoque centrado en las personas a fin de formular conjuntamente las estrategias de una intervención para el control de la hipertensión dirigida por agentes comunitarios de salud, mediante cinco talleres interactivos en los que participaron 24 agentes comunitarios, 32 profesionales de la salud (personal médico, de enfermería y administrativo) y 18 miembros de la comunidad que presentaban hipertensión.

Resultados. Definimos cinco recomendaciones principales sobre los objetivos y las necesidades de un programa de apoyo para el control de la hipertensión dirigido por agentes comunitarios de salud. En primer lugar, mejorar los comportamientos de salud de los pacientes. Mediante una iniciativa de educación sobre el comportamiento a domicilio, adaptada al contexto local, los agentes comunitarios de salud pueden fomentar una alimentación saludable para el corazón, la práctica de ejercicio físico, la adhesión al tratamiento farmacológico junto con los remedios tradicionales y la búsqueda regular de atención médica. En segundo lugar, mejorar la atención de la hipertensión en los establecimientos de salud. Los agentes comunitarios de salud pueden subsanar las deficiencias en la atención de salud derivadas de la escasez de médicos, la complejidad de los sistemas de atención de salud, los procedimientos complejos de programación de citas y las barreras lingüísticas, al tiempo que promueven una atención de salud más respetuosa. En tercer lugar, integrar a los agentes comunitarios de salud en el sistema de salud oficial. La capacitación conjunta, las reuniones mensuales y una mejor comunicación con los profesionales de la salud pueden mejorar la integración de los agentes comunitarios en el sistema de salud y reducir la preocupación de que se extralimiten en la atención del paciente. En cuarto lugar, capacitar y equipar a los agentes comunitarios de salud. Es necesario capacitar a los agentes comunitarios de salud sobre la hipertensión y sobre sus funciones en la prestación de atención de salud. También requieren una remuneración, materiales adecuados y suficientes, y apoyo para el transporte. En quinto lugar, elaborar materiales educativos sobre la hipertensión. Los materiales ilustrados, adaptados a la cultura local y redactados en un lenguaje sencillo, junto con actualizaciones periódicas de su contenido, contribuyen a involucrar a los pacientes.

Conclusiones. El proceso de diseño centrado en las personas permitió la creación conjunta de una intervención de apoyo para los pacientes con hipertensión, dirigida por trabajadores comunitarios de salud, adaptada a las necesidades culturales y que operacionaliza los principios de la iniciativa HEARTS.

Palabras clave: Diseño centrado en el usuario; hipertensión; agentes comunitarios de salud; atención a la salud; participación del paciente; Perú.

Cocriação de uma intervenção para o controle da hipertensão arterial conduzida por agentes comunitários de saúde no Peru com uma abordagem de design centrado nas pessoas

RESUMO

Objetivo. Definir o conteúdo essencial e os elementos de design para o apoio ao controle da hipertensão arterial prestado por agentes comunitários de saúde (ACSs) em Puno, Peru, em consonância com a Iniciativa HEARTS.

Métodos. Aplicamos uma abordagem de design centrado nas pessoas para cocriar estratégias para uma intervenção de controle da hipertensão arterial conduzida por ACSs por meio de cinco oficinas interativas com 24 ACSs, 32 trabalhadores da saúde (médicos, enfermeiros e gestores) e 18 membros da comunidade com hipertensão.

Resultados. Identificamos cinco recomendações principais sobre os objetivos e as necessidades de um programa de apoio ao controle da hipertensão arterial conduzido por ACSs. Em primeiro lugar, melhorar os hábitos de saúde dos pacientes. Por meio de educação em saúde no domicílio adaptada ao contexto local, os ACSs podem incentivar uma alimentação saudável para o coração, a prática de atividade física e a adesão ao tratamento medicamentoso juntamente com o uso de práticas tradicionais, bem como a busca regular por serviços de saúde. Em segundo lugar, melhorar o manejo da hipertensão nos serviços de saúde. Os ACSs podem suprir lacunas na atenção à saúde decorrentes da escassez de médicos, de sistemas de saúde complexos, de processos de agendamento complicados e de diferenças linguísticas, ao mesmo tempo em que promovem um cuidado mais respeitoso. Em terceiro lugar, integrar os ACSs ao sistema formal de saúde. Capacitações conjuntas, reuniões mensais e melhoria da comunicação com os profissionais de saúde podem fortalecer a integração dos ACSs ao sistema de saúde e reduzir preocupações quanto à atuação desses trabalhadores fora de suas atribuições no cuidado aos pacientes. Em quarto lugar, capacitar e fornecer recursos para os ACSs. Os ACSs precisam de capacitação em hipertensão arterial e sobre seu papel na prestação de serviços de saúde, além de remuneração, materiais adequados e suficientes e auxílio para transporte. Em quinto lugar, elaborar materiais educativos sobre hipertensão. Materiais culturalmente adequados, com ilustrações, linguagem acessível e atualizações regulares do conteúdo ajudam a engajar os pacientes.

Conclusões. O processo de design centrado nas pessoas permitiu a cocriação de uma intervenção de apoio ao controle da hipertensão arterial conduzida por ACSs e culturalmente adequada, colocando em prática os princípios da Iniciativa HEARTS

Palavras-chave: Design centrado no usuário; hipertensão; agentes comunitários de saúde; atenção à saúde; participação do paciente; Peru.
