Implementation of Community Health Workers in Cervical and Colorectal Cancer Screening for Long-Term Non-Screened Individuals: A Qualitative Study

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Abstract

Inleiding Community Health Workers (CHW's) worden steeds vaker ingezet ter ondersteuning van de eerstelijnsgezondheidszorg, voornamelijk in lage- en middeninkomenslanden. In België is deze aanpak nog relatief ongekend. Dit artikel wil verder onderzoeken hoe CHW's geïntegreerd kunnen worden in de eerstelijnsgezondheidszorg in Vlaanderen, in het bijzonder in kankerscreening.

Methode Deze studie werd uitgevoerd in huisartsenpraktijken in Vlaanderen, België, van november 2023 tot oktober 2024. In totaal namen vier huisartsen-in-opleiding 22 diepte-interviews af met patiënten die al lange tijd niet gescreend waren op baarmoederhals- of dikkedarmkanker. De interviews werden afgenomen met behulp van vignetten die hypothetische scenario's illustreren. Deelnemers werden geïncludeerd uit vier monodisciplinaire groepspraktijken en één wijkgezondheidscentrum, gelegen in zowel landelijke als stedelijke regio's.

Resultaten De deelnemers beschouwen de implementatie van CHW's in de eerstelijnsgezondheidszorg als mogelijke strategie. Zowel een duidelijke link tussen de CHW en de huisartsenpraktijk als de introductie van de CHW door de huisarts zijn belangrijke bevindingen. Volgens de deelnemers spelen CHW's een rol in motiveren, geven van informatie, begeleiden en emotioneel ondersteunen. Sterke punten zijn flexibiliteit, betrouwbaarheid en een patiëntgerichte en niet-opdringerige aanpak. Effectieve communicatie, opleiding en het doorbreken van taalbarrières zijn essentieel.

Conclusie De rol van CHW's berust op een patiëntgerichte benadering die patiënten in staat stelt een geïnformeerde beslissing te nemen over deelname aan screening. De integratie van CHW's in de eerstelijnsgezondheidszorg heeft het potentieel om gelijke kansen binnen de gezondheidszorg te bevorderen en kan bijdragen aan een meer inclusieve en effectieve gezondheidszorgverlening.

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Abstract

Background Community Health Workers (CHWs) are increasingly involved in supporting primary care, particularly in low- and middle-income countries. In Belgium, this approach is still relatively unfamiliar. This article aims to further explore how CHWs can be integrated in primary care in Flanders, particularly in cancer screening.

Methods This study was conducted in Flanders, Belgium, from November 2023 to October 2024. In total 22 in-depth interviews with long-term non-screened patients were carried out in primary care practices (PCPs) by four general practitioners (GPs) in training. Data were collected using vignettes illustrating hypothetical scenarios. Participants were recruited from four monodisciplinary group practices and one multidisciplinary community health centre, located in both rural and urban regions.

Results The implementation of CHWs in primary care is perceived as an acceptable strategy by long-term non-screened patients for cervical cancer and colorectal cancer. A GP-led introduction and a clear connection of the CHW to the PCP are both considered important. According to participants, CHWs play important roles in motivating, providing information, guidance, and emotional support. Strengths include flexibility, a patient-centred approach, trustworthiness, and a nonintrusive presence. Effective communication, proper training, and language compatibility are seen as essential.

Conclusion The role of CHWs relies on a patient-centred approach empowering patients to make informed decisions regarding screening. Strengthening the integration of CHWs in primary care has the potential to enhance health equity and can contribute to more inclusive and effective health care delivery.

Keywords Community Health Worker, Cervical and Colorectal Cancer Screening, Primary Health Care

Introduction

Preventive healthcare is a fundamental aspect of primary care. Yet, disparities in access still pose challenges, highlighting inequities within the system (1). According to the World Health Organization (WHO), equity in health refers to the absence of avoidable or remediable differences in health among population groups, whether those groups are defined socially, economically, demographically, or geographically (2). Promoting equity involves ensuring that all individuals have the opportunity to achieve their optimal level of health, regardless of their socio-economic background, gender, ethnicity, or other factors (2).

People born in high-income countries generally have higher attendance rates for cancer screenings (3, 4). However, even within these countries, notable disparities in cancer care and outcomes persist, largely driven by social and economic inequalities. Lower levels of education and higher poverty are linked to a higher prevalence of certain types of cancer (5). Moreover, individuals with low socioeconomic status, no health insurance, and no regular source of health care face significant barriers to accessing preventive services (6). Barriers can be categorised as financial constraints, lack of knowledge, individual factors (such as fear or shame), interpersonal factors (such as gender or cultural influences), and organisational barriers (such as language difficulties or long waiting times)

(7-10). These factors highlight the inequities in healthcare access and underscore the complex relationship between socioeconomic conditions and health outcomes.

In Flanders, Belgium, the Centre for Cancer Detection (CvKO) organises three population-based cancer screening programs: cervical, colorectal, and breast cancer. Cervical cancer (CC) screening is offered to women aged 25 to 64 by them receiving an invitation letter to make an appointment with their general practitioner (GP) or gynaecologist. For women aged 25 to 29 a cervical smear test is taken every three years, followed by cytological examination, and if abnormal, an additional HPV PCR test is conducted. For women aged 30 to 64, this process is reversed: the HPV test is conducted first, and if the result is abnormal, a cytological examination follows. For colorectal cancer (CRC) screening, individuals aged 50 to 74 receive an invitation letter every two years along with a sampling kit for the immunochemical faecal occult blood test (iFOBT). For breast cancer screening an invitation for mammogram is sent every two years for women aged 50 to 69. (11)

Screening programs are organised for the entire population, but not everyone is reached. In 2023, 33.9% of the target population in Flanders did not participate in CC screening, 36% did not take part in CRC screening and 34.4% did not attend the appointment for breast cancer screening (11). A study conducted by CvKO in Flanders found that individuals with lower family income, people with disabilities, and individuals of foreign nationality have lower participation rates in cancer screening programs (12).

Community Health Workers (CHWs) can potentially play a role in addressing barriers and increasing awareness of cancer screening programs. The WHO defines CHWs as “people who provide health and medical care to members of their local community, often in partnership with health professionals” (1). They receive lower levels of formal education and training than professional health care workers. This human resource group has enormous potential to extend health care services to vulnerable populations, to meet unmet health needs in a culturally appropriate manner, improve access to services, address inequities in health status and improve health system performance and efficiency (13). CHWs are selected based on their personal connections to the intended community, cultural background, language skills, and other relevant characteristics. They can act as intermediaries between certain populations and healthcare systems, improving healthcare accessibility and identifying structural inequalities (13-15).

The implementation of CHWs has already been established, mostly in low- and middle-income countries, where they are involved in maternal and child health, disease prevention, chronic disease management, and health education. For example, CHWs support vaccination campaigns, manage conditions like HIV, tuberculosis and malaria, and provide prenatal care. They also offer health education on hygiene, nutrition, and family planning. CHWs work both in rural areas and urban settlements, where they conduct home visits, monitor health conditions, and distribute medications. In some countries CHWs also take on clinical tasks such as measuring blood pressure and blood glucose. (16-19)

In Belgium, CHWs are active both within a federal pilot project and as "health guides" in Ghent (20, 21). This article aims to further explore how CHWs can be integrated into primary care in Flanders to reach long-term, non-screened patients. It also examines the nature of these interactions and how CHWs can equip patients with the information necessary to make informed health decisions. The research focuses on identifying the most effective strategies for engaging these patients, including the profile of the CHW, potential roles, ideal locations, and the tools required for successful implementation.

Methods

Setting and project characteristics

This study was conducted in East and West Flanders, Belgium, from November 2023 to October 2024. The research was set up in collaboration with the Department of Public Health and Primary Care of the University of Ghent and run and coordinated by a team of four female GPs in training. The primary goal of this study was to provide insight into the participants' perspectives on the implementation of CHWs for CC screening and CRC screening in primary care practices. Results were obtained through a series of in-depth interviews in Dutch or English.

Study design

This study used a qualitative research design, guided by thematic analysis, to identify recurring patterns and key themes within the data. In-depth interviews were conducted with long-term non-screened patients to investigate the potential role of CHWs in initiating discussions on cancer screening. The interviews explored communication strategies, including information delivery methods, content, and format, as well as the qualifications and responsibilities of CHWs within primary care settings.

The interviews were structured around the following key questions:

- How can CHWs support cancer prevention within general practice?
- What qualifications and skills should a CHW have to engage effectively with the target group?
- How do long-term non-screened patients prefer to receive information about CC and CRC screening from CHWs?
- What should this information look like?

The reporting guidelines of this study align with the Consolidated criteria for Reporting Qualitative research (COREQ) (22).

Recruitment of participants, data collection and data analysis

Participants were recruited from practices where the interviewers worked: two urban and two rural monodisciplinary group practices, as well as one urban community health centre. Recruitment was conducted using convenience sampling based on a query of long-term non-screened individuals. This data was obtained from electronic health records (EHRs) via CvKO. Eligibility criteria included no participation in CC screening during the past six years and no participation in CRC screening during the past three years.

The study aimed for a heterogeneous sample of long-term non-screened individuals. While previous research (7, 8) highlights the need for refined public health strategies to help vulnerable populations make more informed decisions about participating in screening programs, this study focused on key considerations within the general population, rather than targeting specific vulnerable groups. This decision was primarily based on practical considerations. Patients who met the inclusion criteria and provided consent to participate were included in the study.

Data were collected through in-depth interviews using vignettes illustrating hypothetical scenarios to guide conversation (Attachments 1 and 2). These vignettes were chosen because CHWs are not yet widely implemented in Flanders and may therefore seem abstract to participants. The vignettes served as an illustrative tool, making the concept easier to visualise. Each interview was audio-recorded and transcribed. The average duration of each interview was approximately one hour. Interviews continued until data saturation was reached.

Data analysis was conducted following the QUAGOL guidelines (23). All team members participated in the data analysis of all interviews. Tasks were distributed through a rotating system: one team member conducted the interviews, another transcribed the recordings verbatim, and two members independently coded the transcripts. Discrepancies in coding were discussed until consensus was reached. The themes were derived directly from the data through an iterative process. The analysis was supported by NVivo software.

Ethics

Approval was obtained from the Ethics Committee of Ghent University Hospital in September 2023 (registration number: B6702023000455). All participants gave informed consent.

Results

Participant characteristics

Potential participants were contacted by phone or approached in person by the researchers. A total of 22 interviews were conducted: 11 interviews for CHW implementation in CC screening, 11 interviews for CHW implementation in CRC screening. Participants ranged in age from 33 to 72 years and included both men and women from rural and urban areas. Their educational backgrounds varied, ranging from high school to bachelor's and master's degrees. Participant sociodemographic characteristics are summarised in Table 1. Interviews took place either at participants' homes or in the primary care practice (PCP) where the researchers worked, ensuring a private setting with

Table 1: Sociodemographic characteristics of participants

	Age	M/F	Marital status	Urban / Rural	Level of Education	Migration Background	Religion	Native Language	Reason for non-participation in screening	Last Pap smear (years)	Last iFOBT (years)
P1	53	F	Divorced	Rural	High school	N	Catholic	Dutch	Out of mind / Fear	13	-
P2	46	F	Single	Rural	High school	N	No	Dutch	Out of mind	8	-
P3	38	F	Married	Rural	Bachelor	N	No	Dutch	Out of mind	7	-
P4	51	F	Divorced	Urban	Bachelor	Y	Muslim	Turkish	Out of mind	10	-
P5	56	F	Married	Rural	Master	Y	Catholic	English	Out of mind	-	3
P6	55	M	Married	Rural	High school	N	Catholic	Dutch	Not recognising importance	-	3
P7	57	F	Married	Rural	Bachelor	N	Catholic	Dutch	Postponed	7	-
P8	33	F	Married	Urban	High school	Y	Hindu	Nepali	Unfamiliar with test	Never	-
P9	40	F	Married	Urban	Master - NRB	Y	Muslim	Arabic	Postponed	8	-
P10	68	F	Married	Rural	Bachelor	N	Catholic	Dutch	Out of mind	-	8
P11	53	F	Single	Rural	Bachelor	N	No	Dutch	Out of mind	7	-
P12	58	F	Married	Rural	Bachelor	N	Catholic	Dutch	Not recognising importance	7	-
P13	72	M	Married	Rural	High school	N	Catholic	Dutch	Out of mind	-	5
P14	71	F	Married	Rural	High school	N	Catholic	Dutch	Out of mind	-	5
P15	40	F	Married	Rural	Bachelor	N	Catholic	Dutch	Out of mind	6	-
P16	66	F	Divorced	Urban	Bachelor	N	Catholic	Dutch	Postponed	-	3
P17	57	F	Widow	Urban	Bachelor	N	Catholic	Dutch	Ashamed	-	3
P18	69	F	Married	Rural	High school	N	Catholic	Dutch	Out of mind	-	Never
P19	37	F	Single	Urban	High school	Y	Catholic	English	Out of mind	11	-
P20	61	F	Divorced	Rural	Bachelor	N	Catholic	Dutch	Out of mind	9	-
P21	60	M	Divorced	Urban	High school	N	Catholic	Dutch	Out of mind	-	3
P22	56	F	Married	Urban	Bachelor - NRB	Y	Hindu	Hindi	Unfamiliar with test	-	Never

M = male. F = female. Y = yes. N = no. NRB = not recognised in Belgium.

no other individuals present. If a therapeutic relationship existed, team members interviewed each other's patients to avoid bias.

Perception on CHWs in cancer screening outreach

In general, the use of CHWs is perceived by long-term unscreened patients as an acceptable strategy to improve access to information about CC and CRC screening. However, this approach may not be equally suitable for all patients. Some participants consider the involvement of a third intermediary person, other than their GP, as unnecessary.

"I find that highly valuable. Ultimately, they ensure that individuals who have not yet had the time or opportunity are given the chance for this to become part of their lives without requiring any effort on their part. Not everyone actively seeks help or is aware of the need for it, and being approached in this way is truly beneficial." (P1)

"I think it might be a bit less approachable to involve yet another person of trust, and that they might find it easier to talk to their GP than to someone else they don't know." (P10)

Relation to primary care practice

Participating patients find it acceptable for GPs to share the data of long-term non-screened patients with CHWs. First, a key condition is that the GP introduces the CHW so patients can give their consent. Secondly, it is important that there is a link between the CHW and the PCP. Thirdly, it is preferred that the patient has a trust-based relationship with the PCP. Additionally, it is an advantage if the CHW is already a familiar person to the individuals they aim to reach.

"If that happens, maybe for some people it could feel that way, if that information is passed on to someone else without your knowledge… If suddenly someone else calls you, that might feel a bit strange. You might think, "Oh, they gave my details to someone," even if it's within the same practice. It might be better if the information came from their GP, saying, "We are going to handle it this way." (P15)

"Yes, I think it's closely tied to the GP. Everything should start with the GP. They are the confidants. Then they can say: "Look, maybe you should see the CHW, it might be necessary for you to get that test done." (P21)

"A community health worker remains a strange person people have questions about. So it's really important to explain clearly who they are, what they do, and that they're well-connected with all the networks and organisations." (P11)

Role of CHW

The role of the CHW in screening of CC and CRC within PCP extends beyond just providing information. It also involves offering practical and emotional support to patients. According to participants, the CHWs responsibilities include assisting patients with appointment scheduling, offering a compassionate listening ear, and providing reassurance.

"It has to be someone who can truly listen, someone who won't lose their patience if the conversation gets tough, and who can also persuade others of the importance of taking action." (P10)

However, the role of the CHW is not limited to cancer screening alone. Participants indicated that there is a broader interest in receiving guidance and support on other health and wellbeing topics, such as lifestyle choices (e.g. parenting), prevention (e.g. vaccination), and mental health (e.g. loneliness, addiction, eating disorders).

"Yes, well, I think of two things: things that can be prevented and, secondly, things that linger. Lingering in people where you wouldn't know, like alcohol, drugs, or depressive issues. I think that's important." (P12)

"Just having a chat about something else, just to take their mind off things. A lot of people are lonely, and someone could make a difference there. Simply asking if they need anything, if they feel like talking, or if they need a conversation. That's all possible then." (P10)

Moreover, participants emphasised motivating and persuading patients, rather than merely providing factual information resulting in informed decision-making. While providing accurate information is important, the CHWs ability to inspire and encourage patients to take proactive steps towards health screening and decision-making is seen as an important aspect of their role.

"The CHW must provide motivation, of course. Otherwise, it's pointless. It won't work for everyone, I'm sure of that. But you should still try to convince those people. Even if you don't feel any pain, something could still be wrong. And the test takes no effort." (P17)

Characteristics of CHW

The key characteristics of a CHW can be summarised into three components: attitude, knowledge and skills. Commencing with attitude, a CHW should demonstrate flexibility and the ability to adapt to the individual needs of each patient. Furthermore, they must be trustworthy and easily accessible to ensure patients feel comfortable seeking their support and guidance. Characteristics such as being easy-going, calm and compassionate are mentioned. A CHW should adopt a non-intrusive approach, ensuring that they do not impose on patients or create discomfort. Additionally, they must be mindful of avoiding actions or communication that could induce fear in patients.

"Not too distant. Friendly. Someone with a smile on their face. Adding a personal touch. I think that instantly creates a connection with the other person." (P20)

"Being calm. Not pushy. Open-minded. I assume that person must be able to deal with many different personalities. So, a bit flexible. Also, not easily unsettled. Someone who can persuade a little without being intrusive." (P16)

Regarding knowledge, respondents consider it essential that a CHW receives a training program on the specific subject so they can provide adequate information and are able to answer patients' content-related questions. Patients may have questions regarding several aspects of the screening process, including the indications for screening, the frequency of screening, the practical execution of the procedure itself and the cost of the procedure. Additionally, they may ask for clarification on the advantages of participating in screening programs. Patients may also inquire about the potential consequences of not engaging in screening. Furthermore, as mentioned by some participants, patients should be offered guidance in the next steps following an abnormal test result or a cancer diagnosis.

"Even if it were just a short training to be able to carry out the conversation with all the necessary information to explain the procedure, that would be beneficial. It could be anyone, but they should have specific training to engage in those conversations effectively." (P21)

Concerning skills, a CHW should take into account the patient's context, demonstrating the ability to explore potential barriers to participation. They must also possess competence in communication to engage with patients from diverse backgrounds. Additionally, having experience is considered an asset, particularly life experience, which is often associated with older age. CHWs have greater credibility when they can explain a test based on their personal experience.

"Someone who can speak from personal experience, someone who has reached that stage in life and has already done that test. A 20-year-old with a solid education could explain it perfectly, but they wouldn't be convincing because they haven't been through it themselves yet." (P17)

"The closer they are to that culture, or at least have knowledge of it, the better. This allows for a more accurate assessment of the most appropriate approach. I believe that one does not necessarily have to come from the same culture to have sufficient understanding of it. A genuine interest is also important—not merely theoretical knowledge from books, but a deeper, more engaged familiarity with the culture." (P15)

"Perhaps this could also be useful depending on the target group, as it provides insight into their values and beliefs. Understanding this may enable a more effective approach to discussing the topic." (P16)

The three qualities mentioned above enable a person-centred approach, which outweighs specific personal characteristics such as migration background, ethnicity, religion or culture, according to participants. Preferences tend to vary on an individual basis, especially concerning gender. Remarkably, some participants made assumptions on how patients with a migration background would have other preferences, like concordance in gender, religion, culture...

"It's difficult to differentiate the CHWs in such a way that you have the right one for each person. So I think there's a very important role for the GP to choose the CHW who can interact with different types of people." (P16)

"Competence doesn't depend on religion or gender. Sexual orientation? Gender? No– competence! With a competent person, you feel at ease." (P4)

Information delivery

There are various approaches to reach and inform patients about CC and CRC screening programs. Both one-on-one and group sessions were found to be appropriate. Within the group sessions, there was a preference for smaller groups, while also ensuring the opportunity for individuals to ask personal questions afterward.

"In a one-on-one conversation, you can go deeper into things. You can't do fine-tuning in group sessions. You can't see if the message is received by everyone." (P4)

"I think a group session definitely lowers the barrier. You don't have to say anything or ask questions; you can remain somewhat anonymous." (P15)

Consultations and home visits are possible approaches. Consultations at the PCP were favoured, although an external neutral location was often suggested. Respondents noted that it is important to consider that home visits may not be suitable for everyone.

"I might find that a step too far. You have your living space… your personal atmosphere. I think it should only happen if [a fictitious person used in the vignette cases] invites them herself. But it feels more appropriate than someone just showing up uninvited." (P16)

Letters, flyers, emails and websites could be used as supplementary tools, but only after a personal conversation has taken place. Involving family members may be an added value. While a phone call invitation is a possibility, it is preferred that the GP notifies the individual in advance that the CHW will be reaching out. Preferences differ, making a person-centred approach essential to ensure an informal and welcoming atmosphere. What is clear, however, is that language barriers must be eliminated. A visual representation is mentioned as additional support throughout the explanation.

"It's great that it's in his language. That will help lower the barrier. He can ask questions freely without having to worry about finding the right translation. His native language is probably still the best option; it's the one in which he can express himself most comfortably." (P18)

"Showing how it works with a model, explaining it visually. I think people want a concrete image of it. Sometimes, a picture speaks louder than words." (P4)

Discussion

The implementation of CHWs in primary care is perceived as an acceptable strategy by long-term non-screened patients for CC and CRC. It is preferred that they have a well-established relationship with the PCP. More important is the introduction of the CHW by the GP, rather than the CHW being formally integrated into the PCP team. Regarding cancer screening, the role of the CHW includes motivating and providing information, navigation and emotional support. Besides cancer screening, additional roles such as prevention, lifestyle guidance, and mental health support were suggested. Key characteristics of a CHW, as mentioned by the participants in our study, are flexibility, a patient-centred approach, trustworthiness and a non-intrusive presence. Proper training is essential, ensuring that CHWs possess in-depth knowledge of the specific topic. Communication skills and life experience were also highly valued. Group sessions, preferably in smaller groups, and one-on-one interactions, including home visits and consultations, were all considered acceptable. Supplementary materials (e.g. flyers, brochures, emails) were seen as valuable but primarily in addition to personal interaction. A key finding was that language barriers should be adequately tackled.

The majority of the participants reported that it is essential for the GP to introduce the CHW. The importance of this introduction presents concerns about feasibility. It may not be realistic for a GP to request consent from every patient before the CHW contacts them, as this is a time-intensive task. A potential solution could be to integrate CHWs more effectively into PCPs, thereby eliminating the need for an explicit introduction. However, in Flanders, multidisciplinary PCPs have not yet been widely implemented. The majority of participating patients were unfamiliar with the idea of a multidisciplinary approach within a general practice. This brings up the question whether this need for introduction stems from concerns about confidentiality, as patients might find it inappropriate for someone other than their GP to access their personal information, or if it is simply due to unfamiliarity with such practices.

Additionally, the scope of consent raises questions about whether it covers only giving contact details or also includes medical information, e.g. time since last screening. It also needs clarification whether consent must be formally documented or if verbal consent would suffice. Furthermore, the issue of professional confidentiality arises when the CHW receives medical information. Are they bound by professional secrecy? This consideration extends to whether this topic should be systematically integrated into the training of CHWs. Further research is needed to examine the specifics of this consent, as well as the professional confidentiality of the CHW.

These considerations prompt reflection on the future of PCPs. Primary care in Flanders, like many healthcare systems globally, is facing a major challenge, with an aging population and a shortage of professionals creating strain on both accessibility and affordability (1). Some patients may be hesitant towards new professional roles in primary care and seem to prefer providers they already trust. How can GPs manage and support the acceptance and integration of these new professionals within emerging models of care?

Informed decision-making is an important objective in patient-centred primary care (1). CHWs can be implemented to facilitate shared decision-making by providing information. However, participants mentioned that patients mainly seek advice on the best option for them, although the objective is to enable them to make an informed decision. This raises the question on how CHWs are expected to navigate this process, helping patients in decision-making without directing them towards a particular choice. The frequent identification of motivation as a key role of the CHW could be explained by participants perceiving cancer screening as having only benefits and no disadvantages. Participants emphasised that CHWs should communicate both the benefits of screening and the risks of not screening. However, no participant mentioned potential drawbacks of screening itself. In general, there seems to be little critical reflection on screening, and its downsides are rarely discussed (24). The invitation letter from CvKO (25) does include information on these drawbacks, raising the question whether this should also be standardly included in the CHWs' explanation to patients.

The discussion of vignettes revealed how participants' own backgrounds shaped their assumptions about cultural needs. Participants were asked to immerse themselves in different scenarios by using vignettes. In these scenarios the gender and ethnicity of the CHW were frequently discussed. Interestingly, all participants who considered it essential that the CHW has the same ethnicity as the patient, had no migration background. No patient with a migration background mentioned this, and two of them even explicitly stated it as unimportant. While participants attempted to envision themselves in someone else's situation, they cannot accurately represent the perspective of another demographic group. This reflects the stereotypical perceptions that most participants without a migration background have on individuals with a migration background, which can also be present among healthcare professionals This underlines the need for implementing CHWs to enhance the cultural inclusivity in healthcare, as both our findings and the literature (14, 15) suggest that CHWs must have a deep understanding of the community they work within. Additionally, language barriers (14) play a crucial role in this context, highlighting the need for both education and practical strategies to address these challenges effectively.

The study results are in alignment with previous studies (8), particularly emphasising the importance of a person-centred approach (1). Characteristics such as trustworthiness and the training of CHWs are also in accordance with existing literature (13, 14). This study highlighted the introduction of the CHW by the GP as a crucial element, a finding not previously documented. Furthermore, this study is the first to explore the CHWs' role in cancer screening in Flanders. Interestingly, motivation has not been reported as a key role of the CHW in previous research, unlike the widely reported roles of navigation, support, and information provision (19). Participants also suggested expanding the range of responsibilities for CHWs. However, existing research indicates that an excessive workload can reduce the CHW's productivity and service quality (13). Therefore, it is crucial to maintain a balanced distribution of responsibilities to ensure that CHWs have a well-defined and effective role.

There are some limitations to this study. First, the sample of participants consists primarily of individuals with a certain degree of education, whereas CHWs are specifically a strategy designed to reach individuals in vulnerable contexts, based on a proportionate universalism approach. Future research should clearly define the target group, recognising that no universally comprehensive definition of a vulnerable background exists. Second, this study focused specifically on cancer screening, which allowed for the use of concrete vignettes and interviews. While this approach provided valuable insights, it also limited the scope of exploration. Patients themselves highlighted the potential for CHWs to be employed within a more integrated approach, suggesting the need for a broader implementation of CHWs in preventive care.

The in-depth interviews with patients provided valuable, detailed insights into their perspectives. A strength is the use of vignettes, allowing participants to speak more freely and share their opinions with fewer barriers as they feel less personally addressed. Since CHWs are still an abstract concept for many, the vignettes helped participants better immerse themselves in the scenarios. The vignettes were pilot-tested, which led to adjustments after several interviews to better align them with the research questions.

Based on the findings of this study, several recommendations can be formulated. It should be further explored how CHWs can be implemented in primary care, particularly for vulnerable populations in Flanders. Additionally, education should address the involvement of CHWs and other professionals, such as social workers, in healthcare, as this is currently underrepresented in training programs. Practically, prevention can be outsourced in a multidisciplinary context, with CHWs playing a key role. A broader implementation of CHWs would improve efficiency, though cost-effectiveness requires further investigation. The future of general practices may involve more multidisciplinary teams, with CHWs contributing to patient care and outreach.

Conclusion

This study highlights the importance of a patient-centred approach in the role of CHWs in primary care. CHWs should support patients in making informed decisions, ensuring they feel well-guided and empowered in their choices. A key finding is

that the introduction of CHWs by the PCP is crucial for patient acceptance and trust.

Beyond its implications for health care practice, these findings hold broader societal relevance. Strengthening the integration of CHWs in primary care has the potential to enhance health equity and can contribute to more inclusive and effective health care delivery.

Conflict of interest

There was no conflict of interest associated with this study.

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Attachments

Attachment 1: Vignette - Cervical cancer screening

Story 1: Natasha [Fictitious name]

Natasha is a 35-year-old single mother. She works as a cleaning lady in the local school. In the past months, she has been absent frequently due to persistent back pain. She lives with her 7-year-old son Noah in a small rental apartment.

During numerous consultations with the GP because of her lower back pain, the GP noted that a Pap smear test has not been done since her son was born (7 years ago). Because of the back pain, there has not been room to talk about Pap smears during the consultations. The GP asks the practice's CHW, Bruno, to give Natasha a call and talk about Pap smears.

Story 2: Aïcha [Fictitious name]

Aïcha is a 45-year-old woman and lives with her husband and 4 children in a townhouse in the city center. Eight years ago, they migrated from Afghanistan to Belgium. Her husband is a bus driver at De Lijn. Aïcha is a dedicated housewife and takes full charge of the household and the children's education.

A CHW Maryam, also from Afghanistan, holds an information session on cervical cancer and Pap smears at the mosque where Aïcha goes weekly. The CHW will do this in the native Dari language. Aïcha wonders what a Pap smear test is, she feels healthy.

Story 3: Sonja [Fictitious name]

Sonja is a 55-year-old woman who has been married to her husband Mario for 28 years. They have no children, but live with their dog in a residential area in the countryside. Her husband often has night shifts. She herself works as a secretary. She has been a caregiver for her parents since her father was diagnosed with dementia. Her mother has difficulty walking.

Sonja visits the GP to discuss her parents' health problems. In the waiting room, she notices a poster about cervical cancer. She can't remember when her last Pap smear test happened. At the bottom of the poster is an email address and phone number of a CHW who offers to visit her at home with additional info.

Guiding questions

Story 1:

Do you have any questions about the story I just told you?
Are there any elements in the story that you don't understand?
Are there any words in the story that you don't understand?
For what reason or reasons might Natasha not have attended screening in recent years?
What do you think Natasha would think about the collaboration between the regular GP and the CHW Bruno?
What do you think about the way Natasha is approached by the CHW Bruno? What would she think about being called? How would she prefer to be contacted?
What questions might Natasha have about cervical cancer screening?
What information would Natasha like to receive about Pap smears? How do you think she would prefer to receive this information?

Story 2:

Do you have any questions about the story I just told you?
Are there any elements in the story that you don't understand?
Are there any words in the story that you don't understand?
For what reason or reasons might Aïcha not have attended screening?
How do you think Aïcha feels when she sees that Maryam, who is part of the same community, is organising an information session at the mosque?
What do you think Aïcha thinks about the way she is approached by the Community Health Worker Maryam?
How do you think Aïcha would prefer to receive information about cervical cancer screening? What kind of information do you think Aïcha would want?
Would Aïcha find Maryam suitable to provide information on this topic? Why? … From whom do you think Aïcha would prefer to receive information?
Would it be different if Aïcha spoke Dutch?
What if Aïcha were not religious?
(Optional) I notice you think this is different for Aïcha compared to Natasha, why is that?

Story 3:

Do you have any questions about the story I just told you?
Are there any elements in the story that you don't understand?
Are there any words in the story that you don't understand?
Why do you think Sonja can't remember when her last Pap smear was?
What do you think Sonja would think about the way she can get in touch with the CHW? Would there be other or better alternatives?
What information would Sonja like to receive about cervical cancer screening?
What would Sonja think about a CHW coming for a home visit?
Do you think she would prefer to receive information in another way?
(Optional) I notice you think this is different for Natasha and Aïcha in the previous two stories, why do you think that is?

Ending:

What do you think about the three different ways in which the women were connected with the CHW? Can you think of any other ways?
What additional support do you think could be useful for this target group? Do you think this support could also be provided by a CHW?
I have no more questions. Do you have anything to add before we end the interview?

Attachment 2: Vignette - Colorectal cancer screening

Story 1: Andrea [Fictitious name]

Andrea is a 55-year-old single mother. She works as a cleaning lady at the local school. Over the past few months, she has been frequently absent from work due to persistent shoulder pain. She has one son who is currently in college, so she now lives alone in a small rented apartment.

During several consultations with her GP regarding her shoulder pain, the doctor noticed that she has never participated in the national colorectal cancer screening program. Due to the ongoing issues with her shoulder, there hasn't yet been an opportunity to discuss this during the consultations. The GP asks the practice's CHW, Bruno, to give Andrea a call and talk to her about the stool test.

Story 2: Mousa [Fictitious name]

Mousa is a 67-year-old man who lives with his wife in a terraced house in the city center. Together, they take care of their grandchildren on a daily basis. Thirty-five years ago, they migrated from Afghanistan to Belgium. Until last year, Mousa worked as a bus driver for De Lijn, but he is now retired. His wife is a housewife.

A CHW, Youssef, who is also from Afghanistan, is organising an information session about colorectal cancer and the stool test at the mosque Mousa attends weekly. The CHW will present the session in Dari, their native language. Mousa is curious about what the test is exactly, although he feels healthy.

Guiding questions

Story 1:

Do you have any questions about the story I just told you?
Are there any elements in the story that you don't understand?
Are there any words in the story that you don't understand?
What do you think Andrea would think about the collaboration between her regular GP and the CHW Bruno?
What do you think about the way Andrea is being connected to the CHW Bruno? How do you think she would feel about being called? How would she prefer to be contacted?
What questions might Andrea have about colorectal cancer screening?
What kind of information would Andrea like to receive about the stool test? How do you think she would prefer to receive this information?

Story 2:

Do you have any questions about the story I just told you?
Are there any elements in the story that you don't understand?
Are there any words in the story that you don't understand?
How do you think Mousa feels when he sees that Youssef, who is part of the same community, is organising an information session at the mosque?
What do you think Mousa thinks about the way he is being connected to the CHW Youssef?
How do you think Mousa would prefer to receive information about the stool test? What kind of information do you think he would want?
Do you think Mousa would find Youssef suitable to provide this information? Why? From whom do you think Mousa would rather receive this information?
Would it be different if Mousa spoke Dutch?
What if Mousa were not religious?
Youssef, for example, is giving this explanation in the mosque — what other locations would also be suitable?
(Optional) I notice that you think this situation is different for Mousa than for Andrea — why exactly is that?

Ending:

What do you think about the two ways in which they were connected to the CHW? Are there any other possible ways?
What additional support do you think could be useful for this target group? Do you think this support could also be provided by a CHW?
In what other areas or situations could CHWs be involved?