

RESEARCH ARTICLE

Willingness and cooperative participatory traits of community clientele on health intervention implemented by nursing students

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ABSTRACT

This qualitative study explored community members' willingness and cooperative participation in nursing student-led health interventions. Data from semi-structured interviews with 20 participants revealed that affordability, early disease detection, and convenient access were key motivators for engagement. However, concerns about privacy, fear of negative diagnoses, and time constraints presented significant barriers. Importantly, community members played a crucial role in promoting participation through peer influence and active collaboration with students. These findings highlight the need for future interventions to address identified barriers through improved communication, flexible scheduling, culturally sensitive approaches, and consistent program availability to maximize community engagement and improve health outcomes.

Keywords: student-led health intervention; patient acceptance; patient willingness; patient clinical confidence; nursing students; community healthcare programs

1. Introduction

For decades, student-run initiatives in community settings have provided pre-licensure students across various disciplines with practical experience to develop professional competencies, gain exposure to diverse populations, and engage in social accountability, contributing to both informal and formal professional development^[1]. This includes nursing students, who sometimes conduct healthcare programs as a course requirement. Although patients generally have a positive attitude towards medical students' involvement in their care, a higher refusal rate exists for physical examinations and diagnostic procedures^[2]. This study seeks to investigate the willingness and cooperative participatory traits of community members in health interventions led by nursing students. It aims to explore the factors influencing their engagement and analyze their collaborative behaviors.

Research consistently demonstrates the effectiveness of student-led health interventions, showing improvements in patient health knowledge, attitudes, and behaviors, as well as enhanced self-efficacy and skills for student participants^[3]. Student-run clinics, in particular, foster a deeper understanding of holistic and interprofessional patient care through practical experience and teamwork^[4], with positive impacts observed, especially for patients with diabetes or obesity^[5].

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Patient perspectives on student healthcare involvement are varied. While many patients appreciate the opportunity to participate in student learning and assessment, viewing it as beneficial to their care^[6], and reporting positive experiences with medical student participation^[7], a significant percentage (88%) express willingness to involve students in consultations, particularly older patients and those with less sensitive conditions^[8]. However, contrasting findings reveal a predominantly negative attitude (73.9%) towards student nurses in some settings^[9], highlighting the need for further investigation into factors influencing patient acceptance.

Patients, on the other hand, have also shown diverse forms of collaborative behaviors when engaging with nursing students in health interventions. Patient involvement actively supports the development of nutrition and dietetic students' professional skills^[10], while patients generally display a respectful demeanor in clinical classes with medical students^[11]. Furthermore, medical students value patients' written feedback as a crucial tool for self-directed learning, recognizing patients as collaborative partners and enhancing their clinical confidence^[12].

In the Philippines, Filipino patients value culture and language in health access and trust clinicians with positive communication and intercultural values^[13]. However, some Filipino nursing students experience a theory-practice gap^[14], making student-led healthcare intervention programs a great opportunity for them to apply their theoretical knowledge in a hands-on clinical setting, thereby bridging the gap and enhancing their professional preparedness. This may prove to be more challenging for non-Tagalog-speaking nursing students in the Philippines since they can only resort to translation, nonverbal communication, trust, and institutional support.

This study aims to understand the rationale and factors contributing to the willingness and cooperativeness of citizens in the community toward health intervention programs implemented by nursing students. It seeks to construct a viable and organized approach to patient acceptance of nursing students, enhance patient clinical confidence, and raise the level of health literacy.

2. Literature review

Community-based healthcare interventions rely on active participant engagement for success. Understanding the interplay between factors that motivate participation and those that create barriers is crucial for designing effective interventions. This literature review explores these factors, highlighting their interconnectedness and implications for improving engagement in community healthcare.

2.1. Motivations for participation of beneficiaries in healthcare interventions

A key driver of participation is the provision of tangible benefits. Studies show that access to health prevention training, support for basic needs (including medications and referral services), and demonstrable improvements in lifestyle and program satisfaction significantly influence engagement^[15,16]. The potential for positive individual and systemic health impacts, particularly for vulnerable populations (e.g., the elderly receiving community paramedicine), further strengthens motivation^[17]. Ultimately, comprehensive, accessible, and beneficial services tailored to community needs are essential for attracting and retaining participants^[18].

2.2. Barriers that prevent participants when engaging in healthcare interventions

However, numerous barriers can undermine even the most well-intentioned interventions. These barriers are not isolated but often interact and exacerbate each other. For example, language barriers, cultural differences, and experiences of discrimination disproportionately affect ethnic minorities^[19], while low education levels, infrequent doctor visits, and social isolation pose challenges for older adults^[20]. In the very

elderly, a perceived lack of options, low patient activation, and communication difficulties are prominent obstacles to healthcare decision-making^[21]. Individual factors like gender, age, disease course, comorbidities, family structure, self-efficacy, and coping styles also play a role^[22]. Furthermore, broader contextual barriers, including organizational, cultural, political, and environmental influences, further complicate engagement^[23]. Importantly, a lack of community trust, weak external linkages, and unsupportive institutional processes can significantly hinder participation, emphasizing the need for a multifaceted approach^[24]. These barriers directly counter the motivations discussed earlier, highlighting the need for strategies that address both simultaneously.

2.3. Forms of patient participation in community healthcare outreach

Addressing these barriers requires various approach that leverages various forms of patient participation. This approach focuses on empowering patients and fostering a more patient-centered healthcare system. Virtual outreach initiatives, for example, can enhance health literacy and expand access to primary care, especially for vulnerable populations^[25], directly addressing barriers related to access and information. Active patient engagement, encompassing shared decision-making, feedback provision, and self-management education, fosters a more patient-centered approach and empowers individuals to take control of their health^[26,27], thereby overcoming barriers related to patient activation and communication. Structured platforms like patient focus groups ("mirror meetings") provide valuable insights into patient experiences and satisfaction, informing the refinement of healthcare strategies^[28], allowing for the identification and subsequent mitigation of system-level barriers. By actively involving patients in shaping healthcare processes and outcomes, these strategies simultaneously improve communication, foster trust, and provide tailored support, directly addressing many of the barriers previously identified.

2.4. Long-term engagement strategies used in public health measures

Sustaining engagement requires a shift toward long-term strategies that simultaneously build upon the positive motivations and proactively mitigate the barriers to participation. Individual factors like personal agency, motivation, and value alignment are crucial, as is the quality of the intervention and effective recruitment^[29]. Effective long-term strategies must reinforce the positive aspects that initially attract participants while actively addressing the challenges that lead to disengagement. For example, personalized support, social support networks, and tailored feedback^[30] directly address the need for demonstrable benefits and high program satisfaction, key motivators for participation. Furthermore, optimizing intervention policies^[31] to ensure comprehensive, accessible, and beneficial services directly builds upon the initial motivations. Clinic-based interventions, such as bi-directional texting programs^[32], can improve adherence and retention in at-risk populations, overcoming barriers related to access and communication. Successful scaling requires robust technical support, training, and a supportive environment^[33], directly addressing potential organizational and resource-related barriers—a challenge highlighted by nursing instructors at Western Mindanao State University in Zamboanga City, who, while confident in using simulation equipment for training, express concerns about limited resources and technical issues^[34]. Similarly, community engagement benefits from peer-led delivery and collaborative partnerships^[35], fostering trust and addressing potential cultural or social barriers. For disengaged patients, patient navigation, reminders, psychosocial support, and transportation assistance^[36,37] can significantly improve outcomes by directly addressing individual-level barriers such as lack of access, motivation, or support. Finally, broader strategies focused on patient engagement, self-management, shared decision-making, and improved patient-reported outcomes^[38] are essential for long-term success, creating a more patient-centered system that addresses multiple motivational and barrier-related factors simultaneously.

3. Methodology

3.1. Research design

This study employed an exploratory qualitative research design to comprehensively investigate the willingness and cooperative participatory traits of community clientele involved in health interventions led by nursing students. This exploratory design was selected because it allows for a rich, in-depth understanding of the complex factors influencing community engagement and collaboration in this specific context. The primary goal is to explore the phenomenon of community participation in nursing student-led health initiatives, identify key variables influencing engagement, and gain insights into the nature of collaborative behaviors. This approach is suitable for generating hypotheses and laying the groundwork for future, more structured research^[39,40].

3.2. Sampling and participants

This study used purposive sampling to recruit twenty (n=20) participants from various communities within Zamboanga City. This non-probability sampling method prioritized in-depth understanding over broad generalizability, ensuring the inclusion of individuals whose characteristics were relevant to understanding their willingness and cooperativeness toward health intervention programs run by nursing students^[41,42]. To mitigate potential biases, participant selection considered age and gender, resulting in a sample with ages ranging from 22 to 65 and an equal distribution of 10 males and 10 females.

The sample size of 20 participants was deemed appropriate for this qualitative study, allowing for a comprehensive exploration of the research question and the collection of rich, detailed data. While the findings may not be generalizable to the entire Zamboanga City population, this study provides valuable insights into the factors influencing community members' willingness to participate in health intervention programs. Future research with a larger, more diverse sample could explore this further. **Table 1** presents the age and gender distribution of the respondents.

Table 1. Respondent's profile.

No. of Respondents	Age	Gender
Respondent 1	35	Male
Respondent 2	62	Female
Respondent 3	28	Male
Respondent 4	48	Female
Respondent 5	55	Female
Respondent 6	70	Male
Respondent 7	31	Female
Respondent 8	42	Female
Respondent 9	25	Male
Respondent 10	58	Female
Respondent 11	65	Male
Respondent 12	38	Female
Respondent 13	45	Male
Respondent 14	22	Female
Respondent 15	51	Male

No. of Respondents	Age	Gender
Respondent 16	68	Male
Respondent 17	33	Female
Respondent 18	40	Female
Respondent 19	29	Male
Respondent 20	53	Male

Table 1. (Continued)

3.3. Instrument

Semi-structured interviews, utilizing open-ended questions, served as the primary data collection instrument. This method was chosen for its flexibility in allowing participants to express their experiences and perspectives in their own words, providing rich qualitative data. The open-ended nature of the questions facilitated the exploration of complex issues and allowed for unanticipated themes and insights to emerge, maximizing the depth of understanding^[43]. The interview guide included pre-determined questions focusing on participants' willingness to participate, their experiences of collaboration, the perceived benefits and challenges of the interventions, and their overall satisfaction. **Table 2** presents the list of questions used for the interviews.

Table 2. Research instruments.

Objectives	Interview Questions
To explore the factors influencing the willingness of community clientele to engage in health interventions implemented by nursing students.	<ol style="list-style-type: none"> 1. What motivates you to participate in health interventions conducted by nursing students? 2. Can you describe any concerns or challenges that affect your willingness to engage in these interventions? 3. How do personal experiences or community influences shape your decision to take part in health programs led by nursing students?
To analyze the cooperative and participatory behaviors exhibited by community clientele in response to nursing students' health intervention programs.	<ol style="list-style-type: none"> 1. In what ways do you actively contribute to or participate in the health interventions provided by nursing students? 2. Can you share an experience where you collaborated with nursing students during a health program? 3. What factors encourage or discourage you from maintaining long-term engagement in these health initiatives?

3.4. Data gathering procedure

Participants were recruited through a multi-stage process. Potential participants were initially identified based on pre-established inclusion criteria. Following identification, they received contact via email and/or phone to explain the study's purpose, obtain informed consent, and arrange mutually convenient interview times. All interviews were conducted in quiet, private settings to foster a comfortable and confidential environment, encouraging open and honest discussion. With participants' explicit permission, interviews were audio-recorded to ensure accurate transcription and data preservation. A trained interviewer followed a semi-structured interview guide, allowing for flexibility to explore emergent themes while ensuring consistent data collection across all interviews.

3.5. Data analysis

Thematic analysis was employed to analyze the transcribed interview data. This involved a systematic, iterative process encompassing several key stages. First, we engaged in repeated readings of each transcript to familiarize ourselves with the data and identify recurring concepts and preliminary themes. This involved identifying key words, phrases, and ideas that appeared repeatedly across the transcripts. These were then coded using concise labels that accurately reflected the core meaning of each segment. Next, we synthesized

these codes, identifying connections and overlapping patterns to refine and consolidate the preliminary themes. This involved grouping similar codes together, creating broader categories, and resolving any inconsistencies or ambiguities in the coding. This iterative process involved repeated review and refinement of the themes, ensuring that they accurately reflected the data. Through this process of constant comparison and cross-referencing across the entire dataset, the codes were organized into higher-order, overarching themes^[44-46]. These themes provided a comprehensive representation of participants' perspectives on their willingness to participate, their collaborative behaviors, and the factors that influenced their engagement in the nursing student-led health interventions. The analysis focused on identifying key patterns and themes directly addressing the research questions concerning community engagement and participation.

5. Results

Research Objectives 1. To explore the factors influencing the willingness of community clientele to engage in health interventions implemented by nursing students.

Question No. 1. What motivates you to participate in health interventions conducted by nursing students?

1.1. Access to free or low-cost healthcare

Ten (10) respondents expressed that they don't always have the money to visit a doctor, so when nursing students offer free checkups or screenings, they take advantage of it. Additionally, they mentioned that healthcare is expensive, and they don't have insurance. These free checkups help them keep track of their health without worrying about costs. Many community members participate in health interventions conducted by nursing students due to financial barriers preventing them from accessing regular medical care. These interventions provide free or low-cost services such as screenings, checkups, and health education, which help individuals stay informed about their health, detect issues early, and manage existing conditions without the burden of high medical costs.

"I don't always have the money to visit a doctor, so when nursing students offer free checkups or screenings, I take advantage of it."

"Healthcare is expensive, and I don't have insurance. These free checkups help me keep track of my health without worrying about costs."

1.2. Early detection of health issues

Ten (10) respondents expressed that a previous screening helped them find out they had high blood pressure, so they always participate now to stay on top of their health. Additionally, they mentioned that they worry about their health but can't always see a doctor. These screenings give them reassurance that they are okay or tell them when to take action. Community members participate in nursing student-led health interventions because they provide valuable early detection of health issues. Many individuals have discovered conditions such as high blood pressure, diabetes, or high cholesterol through these screenings, often before experiencing symptoms. This awareness motivates them to take preventive measures, seek further medical care, and make healthier lifestyle choices. Regular participation helps individuals monitor their health status, reducing the risk of serious complications in the future.

"A previous screening helped me find out I had high blood pressure, so I always participate now to stay on top of my health."

"I worry about my health but can't always see a doctor. These screenings give me reassurance that I'm okay or tell me when to take action."

1.3. Convenience of services

Five (5) respondents expressed that they come to their community center, which makes it easy for them to get checked without traveling far. Additionally, they shared that they have a busy schedule, but since its nearby, they can stop by quickly without taking too much time off work. Community members appreciate the convenience of nursing student-led health interventions because they eliminate barriers to healthcare access. By bringing services directly to local centers, schools, and churches, these interventions make checkups more accessible, especially for those without transportation, those with busy schedules, and those in rural or underserved areas. The ease of attending encourages higher participation, helping individuals stay on top of their health without the challenges of long travel or high costs.

"They come to our community center, which makes it easy for me to get checked without traveling far."

"I have a busy schedule, but since they're nearby, I can stop by quickly without taking too much time off work."

Question No. 2. Can you describe any concerns or challenges that affect your willingness to engage in these interventions?

2.1. Privacy concerns

Ten (10) respondents expressed that they worry about their personal health information being shared. They don't want others in the community knowing their medical issues. Additionally, they mentioned that they don't want people gossiping about their health, especially if it's something sensitive like high blood pressure or diabetes. Privacy concerns are a major barrier for some community members participating in nursing student-led health interventions. Many fear their personal health information will be shared, either intentionally or unintentionally, leading to gossip, judgment, or even workplace discrimination. Concerns about confidentiality, the visibility of screenings in public spaces, and uncertainty about how health records are handled also contribute to hesitation. Addressing these fears through stricter privacy protocols, private consultation areas, and clear communication about confidentiality can help increase trust and participation.

"I worry about my personal health information being shared. I don't want others in the community knowing my medical issues."

"I don't want people gossiping about my health, especially if it's something sensitive like high blood pressure or diabetes."

2.2. Fear of diagnosis

Ten (10) respondents expressed that they are afraid medical team will find something wrong with them. They'd rather not know than deal with the stress of a serious illness. Additionally, they mentioned that if they are diagnosed with something serious, their family will be burdened. They don't want them to worry or struggle with medical bills. Fear of diagnosis prevents many people from participating in health interventions. Some avoid screenings to escape anxiety, financial burdens, or potential lifestyle changes. Others worry about emotional stress, stigma, or the impact on their families. Cultural beliefs and past experiences with healthcare also influence their reluctance. Addressing these fears through supportive counseling, reassurance, and access to affordable care options may encourage more people to take charge of their health.

"I'm afraid they'll find something wrong with me. I'd rather not know than deal with the stress of a serious illness."

"If I'm diagnosed with something serious, my family will be burdened. I don't want them to worry or struggle with medical bills."

2.3. Time constraints

Five (5) respondents mentioned that they have work and family responsibilities, and they can't always make time to attend, even if it's close by. Additionally, they mentioned that they have young children to take care of, and they can't always find time to step away for a checkup. Time constraints are a major barrier to participation in health interventions. Many individuals have demanding work schedules, family obligations, or unpredictable routines that make it difficult to attend. Some feel that waiting in long lines or adjusting their plans isn't worth it unless they feel unwell. Others struggle with fatigue or lack of awareness about event timings. Offering flexible hours, reducing wait times, and providing reminders or incentives may help improve participation.

"I have work and family responsibilities, and I can't always make time to attend, even if it's close by."

"I have young children to take care of, and I can't always find time to step away for a checkup."

Question No. 3. How do personal experiences or community influences shape your decision to take part in health programs led by nursing students?

3.1. Family history of illness

Ten (10) respondents expressed that their mother had diabetes, and they didn't know until it was too late. They participate in these programs to avoid the same fate. Additionally, they mentioned that their doctor told them that since their mom had diabetes, they are at higher risk. That's why they make sure to get screened whenever they can. A family history of illness is a major motivator for participating in health programs. Many individuals have witnessed firsthand the struggles their loved ones faced due to late diagnoses or unmanaged conditions. This personal connection drives them to take preventive action, seek early detection, and make healthier choices. Some participate to break unhealthy family patterns, while others feel a sense of responsibility to stay healthy for their children and loved ones.

"My mother had diabetes, and she didn't know until it was too late. I participate in these programs to avoid the same fate."

"My doctor told me that since my mom had diabetes, I'm at higher risk. That's why I make sure to get screened whenever I can."

3.2. Seeing others benefit

Ten (10) respondents expressed that they saw their neighbor get diagnosed with high blood pressure through one of these screenings. It made them realize they should check their too. Additionally, they mentioned that people in their community have shared how these screenings helped them. People's stories convinced them to participate. Many individuals are motivated to participate in health screenings after witnessing others benefit. Seeing a friend, family member, or community member get diagnosed early or improve their health reinforces the importance of preventive care. Some are driven by fear of late detection, while others are encouraged by positive lifestyle changes in those around them. Community influence and shared experiences play a strong role in convincing people to take their health seriously.

"I saw my neighbor get diagnosed with high blood pressure through one of these screenings. It made me realize I should check mine too."

"People in my community have shared how these screenings helped them. Their stories convinced me to participate."

3.3. Positive past experience

Five (5) respondents expressed that last time, the nursing students were very kind and helpful. That made them feel comfortable returning for another checkup. Additionally, they mentioned that the students took their time to explain everything to them and answered their questions without making them feel rushed. A positive past experience encourages many people to return for health interventions. When nursing students provide kind, patient, and respectful care, clients feel comfortable and valued. Clear explanations, a non-judgmental attitude, and professionalism help build trust and confidence in their services. Many participants appreciate the supportive environment and feel motivated to continue monitoring their health because of their positive interactions.

"Last time, the nursing students were very kind and helpful. That made me feel comfortable returning for another checkup."

"The students took their time to explain everything to me and answered my questions without making me feel rushed."

Research Objectives 2. To analyze the cooperative and participatory behaviors exhibited by community clientele in response to nursing students' health intervention programs.

Question No. 1. In what ways do you actively contribute to or participate in the health interventions provided by nursing students?

1.1. Spreading awareness

Ten (10) respondents expressed that they tell their friends and family about the free screenings and encourage them to go. Additionally, they mentioned that they remind their siblings and parents to get checked, especially if they have health concerns. Community members play a key role in spreading awareness about health interventions. They inform family, friends, and neighbors through word of mouth, social media, and community gatherings. Many share personal stories to encourage participation and support those who may be hesitant. Their efforts help increase turnout and ensure that more people take advantage of free or low-cost healthcare services.

"I tell my friends and family about the free screenings and encourage them to go."

"I remind my siblings and parents to get checked, especially if they have health concerns."

1.2. Bringing others to participate

Five (5) respondents expressed that they bring their elderly parents and neighbors who might not come on their own. Additionally, they mentioned that some of their neighbors have difficulty walking, so they offer to drive their neighbors or help neighbors get there. Many individuals actively help others participate in health interventions by bringing elderly parents, friends, neighbors, and children. They assist those with mobility issues, language barriers, and fear of medical checkups. Some organize group visits, provide transportation, or encourage first-time attendees. Their support ensures that more people in the community can access important healthcare services.

"I bring my elderly parents and neighbors who might not come on their own."

"Some of my neighbors have difficulty walking, so I offer to drive them or help them get there."

1.3. Providing feedback

Ten (10) respondents expressed that they share their experience with the nursing students so they can improve the program for others. Additionally, they mentioned that they tell them if something was unclear or if they had trouble understanding the process, so they can make it easier for others. Community members provide valuable feedback to nursing students by sharing what worked well and suggesting areas for improvement. They offer insights on communication, accessibility, wait times, cultural relevance, and outreach. Their input helps enhance the quality of services and ensures future interventions better meet the needs of the community.

"I share my experience with the nursing students so they can improve the program for others."

"I tell them if something was unclear or if I had trouble understanding the process, so they can make it easier for others."

Question No. 2. Can you share an experience where you collaborated with nursing students during a health program?

2.1. Helping with registration

Ten (10) respondents expressed that they assisted with signing people in and making sure people filled out the necessary forms before seeing the nursing students. Additionally, they mentioned that some people weren't sure where to go next, so they pointed them in the right direction after they registered. Community members assisting with registration play a vital role in ensuring the health intervention runs smoothly. They help fill out forms, guide participants, answer basic questions, and keep the process organized. Their support allows nursing students to focus on providing care while making participants feel welcome and comfortable.

"I assisted with signing people in and making sure they filled out the necessary forms before seeing the nursing students."

"Some people weren't sure where to go next, so I pointed them in the right direction after they registered."

2.2. Sharing personal health experiences

Ten (10) respondents expressed that they talked to the nursing students about their struggles with high blood pressure so they could understand real-life challenges people face. Additionally, they mentioned that they told them how they sometimes forget to take their blood pressure medication or can't afford refills. Nursing students gave them ideas on reminders and financial assistance programs. Community members share their personal health experiences with nursing students to provide real-life insights into managing chronic conditions, lifestyle challenges, and fears about healthcare. These stories help students understand the struggles people face and how they can offer better support and practical advice.

"I talked to the nursing students about my struggles with high blood pressure so they could understand real-life challenges people face."

"I told them how I sometimes forget to take my blood pressure medication or can't afford refills. They gave me ideas on reminders and financial assistance programs."

2.3. Following up with nursing students

Five (5) respondents expressed that after their checkup, they asked questions about how to manage their condition, and they took the time to explain everything to them. Additionally, they mentioned that the students told them when to come back for a follow-up screening, so they can stay on top of their health. Many community members actively follow up with nursing students after their checkups, asking about medication, diet, exercise, mental health, symptom concerns, and preventive care. The nursing students provide guidance, helping people make informed health decisions and take better care of themselves.

"After my checkup, I asked questions about how to manage my condition, and they took the time to explain everything to me."

"The students told me when to come back for a follow-up screening, so I can stay on top of my health."

Question No. 3. What factors encourage or discourage you from maintaining long-term engagement in these health initiatives?

3.1. Free or low-cost healthcare access

Ten (10) respondents expressed that medical care is expensive, but these programs help them monitor their health without worrying about costs. Additionally, they mentioned that they don't have insurance, so these free checkups help them catch health issues early before they become serious. Free or low-cost healthcare programs are essential for many community members who cannot afford medical care. These services help individuals manage chronic conditions, avoid costly hospital visits, and provide much-needed screenings for themselves and their families. By reducing financial barriers, these programs encourage more people to take charge of their health.

"Medical care is expensive, but these programs help me monitor my health without worrying about costs."

"I don't have insurance, so these free checkups help me catch health issues early before they become serious."

3.2. Inconsistent program availability

Ten (10) respondents expressed that sometimes the team offer screenings, and then they disappear for months, which makes it hard to rely on. Additionally, they mentioned that they never know when the team will come back, so they can't plan their checkups or rely on regular screenings. Inconsistent program availability creates challenges for community members who rely on these health interventions. The lack of a stable schedule, limited communication, and long gaps between services make it difficult for people to maintain regular health monitoring. Consistency is key to building trust and ensuring long-term engagement in these programs.

"Sometimes they offer screenings, and then they disappear for months, which makes it hard to rely on."

"I never know when they'll come back, so I can't plan my checkups or rely on regular screenings."

3.3. Noticeable health improvements

Five (5) respondents mentioned that since they started attending, their blood pressure is under control, and they feel healthier, so they want to keep it up. Additionally, they mentioned that now that they

understand how to take care of themselves, they feel in control of their health and want to keep improving. Many community members report noticeable health improvements after participating in these nursing-led interventions. From better chronic disease management to increased energy and confidence in self-care, these programs make a meaningful impact on people's lives. Seeing positive changes motivates participants to stay engaged and continue prioritizing their health.

"Since I started attending, my blood pressure is under control, and I feel healthier, so I want to keep it up."

"Now that I understand how to take care of myself, I feel in control of my health and want to keep improving."

6. Discussion

Objective 1: To explore the factors influencing the willingness of community members to engage in health interventions implemented by nursing students.

Community members' participation in nursing student-led health interventions stems from a complex interplay of factors extending beyond simple accessibility and affordability. While the cost-effectiveness of these services, particularly valuable for those lacking financial resources for regular medical care^[47], is a significant motivator, various underlying reasons exist. The provision of crucial healthcare access, enabling early detection of health problems such as high blood pressure or diabetes, is a key driver. Participants reported that previous screenings led to improved health management and lifestyle changes, highlighting the importance of early detection in proactive clinical and public health interventions^[48]. Furthermore, the convenience of on-site services in community settings removes logistical barriers for individuals with limited transportation or busy schedules, thereby improving spatial accessibility and resource utilization^[49]. This is particularly beneficial for those facing transportation challenges or time constraints, allowing them to prioritize their health and well-being despite competing demands.

Several significant barriers hinder community participation in these nursing student-led health interventions. These challenges are interconnected and multifaceted, extending beyond simple logistical issues. Concerns about privacy, for example, are deeply rooted in cultural contexts and past experiences. Many participants expressed anxieties about potential social repercussions—gossip, judgment, or even workplace discrimination—stemming from the disclosure of personal health information, particularly given the visibility of screenings in public spaces and uncertainties about data management. This highlights the critical need for culturally sensitive approaches to data handling and communication that directly address community concerns about confidentiality and potential stigmatization—a challenge that persists despite improvements in healthcare, as evidenced by ongoing concerns about resource management and the spectrum of survivor stigma, from sympathy to fear^[50]. Adding to these concerns is the fear of receiving a negative diagnosis. This fear is not merely about avoiding bad news; it reflects the potential emotional and psychological burden associated with a diagnosis, including feelings of fear, hopelessness, stigma, loss of identity, and treatment avoidance^[51]. Cultural beliefs and past negative healthcare experiences significantly amplify this reluctance. Understanding these emotional and psychological factors is crucial for designing interventions that foster a supportive and sensitive environment. Finally, time constraints, stemming from demanding work schedules and family responsibilities, significantly impact participation^[52]. These time pressures are not simply a matter of convenience; they reflect broader societal structures and inequalities that disproportionately affect certain demographic groups. Future research should explore how these logistical challenges intersect with other factors—cultural beliefs, socioeconomic status, and access to transportation—

to create unique barriers for specific populations. Confidentiality in community health intervention is crucial, especially for young people experiencing mental health problems and their social workers, helping to address tensions and ethical dilemmas in risk assessment and breaching confidentiality^[53]. Addressing these barriers through supportive counseling, clear communication about privacy, flexible scheduling, and reduced wait times could enhance trust and encourage greater participation in health interventions.

Several factors related to personal experiences and community influences significantly motivate participation. A strong driver is family history of illness, particularly diabetes, highlighting a desire to avoid similar health struggles experienced by loved ones and emphasizing the importance of proactive health management^[54]. This gives importance to the role of social learning and the influence of close relationships on health-seeking behaviors. Furthermore, witnessing the positive impact of early diagnosis within the community—for example, a neighbor successfully managing high blood pressure—reinforces the value of preventative care and encourages participation. This observational learning, while potentially inducing placebo or nocebo effects depending on the individual and treatment setting^[55], demonstrates the power of social influence and shared community experiences in shaping health behaviors. The positive social dynamics within the community, characterized by shared experiences and mutual support, create a reinforcing cycle of engagement. Finally, positive past experiences with the nursing students themselves—characterized by kindness, helpfulness, clear communication, and a respectful approach—foster trust and encourage repeat participation, emphasizing the crucial role of interpersonal relationships in building confidence and promoting engagement in healthcare^[56]. This highlights the importance of patient-centered care and the creation of a supportive environment in fostering trust and encouraging long-term engagement.

Objective 2: To analyze the cooperative and participatory behaviors exhibited by community members in response to nursing students' health intervention programs.

Community members play a crucial role in promoting participation, acting as active advocates and facilitators within their social networks. They actively encourage friends and family to utilize the free screenings, not only informing loved ones about the services but also providing reminders and support, particularly for those with pre-existing health concerns. This grassroots mobilization, amplified through word-of-mouth communication, social media, and community gatherings, leverages existing social structures and relationships to enhance reach and engagement^[57]. This highlights the significant role of social capital and community networks in promoting health-seeking behaviors. Strong social networks provide not only information about available services but also social support and encouragement, increasing the likelihood of participation. Individuals are more likely to engage in health-promoting behaviors when embedded in supportive social contexts where such behaviors are normalized and encouraged. Furthermore, participants actively assist those who might struggle to attend independently, offering transportation and support to address mobility issues or language barriers, thereby ensuring broader access to vital healthcare services. This focuses on the importance of addressing social determinants of health and ensuring equitable access to care. By actively overcoming barriers related to transportation, language, and physical limitations, community members demonstrate a commitment to health equity and ensure that vulnerable populations are not excluded from accessing essential healthcare services. The need for interventions to be sensitive to the unique needs and circumstances of diverse communities is further reinforced. Beyond promoting participation, community members also actively contribute to program improvement by providing valuable feedback to the nursing students. This feedback, encompassing insights on what worked well and suggestions for improvement in communication, accessibility, and cultural relevance, is invaluable for enhancing the quality and effectiveness of future interventions^[58]. This collaborative approach emphasizes the importance of a patient-centered approach to healthcare delivery, ensuring that interventions are

responsive to and relevant to the needs of the community. By actively involving community members in the evaluation and improvement of healthcare programs, a feedback loop is created that ensures that interventions are tailored to meet the specific needs and preferences of the target population. This participatory approach enhances the relevance and effectiveness of interventions and fosters a sense of ownership and investment in the community's health.

Community members significantly contribute to the smooth operation and effectiveness of the interventions by actively assisting both nursing students and fellow participants. Their contributions extend beyond passive participation; they actively shape the program's success. For example, they assist with the registration process, ensuring that forms are completed correctly and guiding participants through subsequent steps. This support not only streamlines the logistical aspects of the intervention but also creates a welcoming and comfortable environment, reducing anxiety and allowing nursing students to focus on providing care. This highlights the importance of creating a supportive and inclusive environment that fosters trust and reduces barriers to participation. Furthermore, community members share their personal health experiences and challenges, providing valuable insights into the realities of managing chronic conditions such as high blood pressure and the difficulties of adhering to medication regimens. These shared experiences inform the care provided, leading to practical advice on reminders and access to financial assistance programs. This collaborative approach transforms the intervention from a one-way delivery of services to a reciprocal exchange of knowledge and support, enhancing the relevance and effectiveness of the intervention. Post-checkup, community members actively engage with nursing students, asking questions about managing their conditions, diet, exercise, and preventive care. This proactive engagement empowers participants to make informed health decisions and encourages them to take a more active role in managing their own health. The nursing students' willingness to engage in these discussions further strengthens the collaborative relationship and reinforces the value of patient-centered care. This collaborative model, where community members and healthcare providers work together towards common goals, is essential for improving community health and development^[59].

Access to free or low-cost healthcare programs offers significant benefits to community members, particularly those lacking health insurance, by enabling health monitoring without the financial burden of high medical costs^[60]. Respondents emphasized the crucial role of these services in facilitating early detection of health issues, enabling effective management of chronic conditions and preventing costly hospitalizations. This highlights the cost-effectiveness of preventative care and its impact on long-term health outcomes. Early detection and management of chronic conditions, such as diabetes and hypertension, can significantly reduce healthcare costs in the long run by preventing more expensive and extensive treatments later on. Preventative care also improves overall quality of life by allowing individuals to manage their conditions effectively and maintain their independence and well-being. Investing in preventative care, therefore, represents a cost-effective and humane approach to healthcare, particularly for vulnerable populations. However, the inconsistency of program availability presents a significant challenge. The intermittent nature of screenings, with periods of inactivity lasting for months, undermines the ability of community members to rely on regular checkups and maintain consistent health monitoring. This lack of continuity is further exacerbated by broader gaps in diagnostic availability in many low-income and middle-income countries, particularly within primary care facilities^[61]. The inconsistency in service delivery not only hinders access to preventative care but also undermines the development of trust and long-term engagement with healthcare services. Establishing a reliable schedule and consistent communication are crucial for building trust and ensuring the sustainability of these programs. When services are unpredictable, community members may become hesitant to rely on them, leading to missed opportunities for early detection and

treatment. Consistent service delivery, coupled with clear communication about program schedules and access points, fosters trust and encourages regular participation, which is essential for achieving long-term health improvements. Despite these challenges, participants reported significant health improvements, including better blood pressure control and an overall enhanced sense of well-being. This improved self-care empowers individuals to prioritize their health and continue making positive lifestyle changes, aligning with findings that interventions can improve self-care behaviors, reduce carer burden, and enhance quality of life^[62]. This positive feedback loop, where improved health leads to increased self-efficacy and continued engagement, underscores the importance of consistent and reliable access to healthcare services. When individuals experience positive health outcomes as a result of participating in these programs, they are more likely to continue engaging with healthcare services and to recommend them to others. This creates a virtuous cycle where improved health leads to increased engagement, which in turn leads to further improvements in health outcomes. This positive feedback loop highlights the importance of ensuring consistent and reliable access to healthcare services to maximize the long-term impact of health interventions.

7. Limitations

This study has several limitations. The purposive sample of 20 participants, while allowing for in-depth exploration of experiences, may limit the generalizability of findings to larger and more diverse populations. Despite a systematic approach to data analysis, the reliance on self-reported data introduces the potential for response bias, as participants may have presented themselves in a socially desirable light, potentially over-reporting positive experiences or under-reporting negative ones. The cross-sectional design prevents establishing causal relationships, and the focus on nursing student-led interventions may limit generalizability to other contexts. Finally, the qualitative nature of the data restricts the ability to quantify relationships between factors and participation rates. Despite these limitations, this study provides valuable insights into community engagement with these interventions, informing future research employing larger, more representative samples and mixed-methods approaches that incorporate objective measures to mitigate bias.

8. Conclusion

This study explored community engagement in nursing student-led health interventions, revealing a complex interplay of factors influencing participation and program success. While cost-effectiveness and convenient access significantly motivated participation, concerns about privacy, fear of diagnosis, and inconsistent service availability posed considerable barriers. Importantly, community members played a vital role, not only actively encouraging participation among their networks but also providing valuable feedback to enhance program quality and address community-specific needs. The observed positive health outcomes among participants, coupled with the strong community engagement, highlight the potential of these interventions to improve health and well-being. However, ensuring consistent service delivery and addressing community concerns about confidentiality are crucial for maximizing the long-term impact and sustainability of such initiatives. Future research should focus on strategies to mitigate identified barriers and further explore the dynamic interplay between community engagement, program design, and health outcomes.

Conflict of interest

The authors declare no conflict of interest.

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