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Understanding Cardiovascular Disease Risk Factors among Older Women in a Medically Underserved Region: Insights from a Focus Group Study

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Background: In regions with healthcare disparities and unique demographics, understanding cardiovascular disease (CVD) risk factors and implementing preventive measures are crucial. This study explores the awareness and perceptions of CVD risk factors among older women in the Icheon region of Korea, a medically underserved area.

Methods: A 120-minute focus group discussion was conducted on November 8, 2023, involving six older women residing in the Icheon region. The discussion was guided by the health belief model.

Results: Participants, influenced by health-related television programs, expressed heightened concerns about dementia and diabetes. While emphasizing individual-level CVD prevention measures such as dietary control, they also expressed concerns about the practical challenges of maintaining dietary control. This underscores the need for tailored interventions in medically underserved areas like the Icheon region. Community-level interventions were perceived as directives to be followed, indicating a need for enhanced understanding of community-based primary healthcare. Future studies could investigate the effectiveness of community-based interventions and social support among older population in regions with limited medical resources.

Conclusion: The study underscores the significance of providing practical information on lifestyle modifications and improving communitybased preventive measures to enhance CVD prevention among the older women in medically underserved regions.

Keywords: Aged; Cardiovascular diseases; Focus groups; Women

연구배경: 인구학적 특성과 의료접근성의 한계를 가진 지역에서 심뇌혈관질환 위험요인을 이해하고 예방조치를 마련하는 것은 매우 중요하다. 이 연구에서는 의료 취약지역으로 분류될 수 있는 한국 이천권역의 노인 여성들 사이에서 심뇌혈관질환 위험요인에 대한 인식과 그 수준을 탐구하였다.

방법: 2023년 11월 8일, 이천권역에 거주하는 6명의 고령 여성을 대상으로 건강신념모형에 기반한 120분간 포커스그룹 토론이 진행되었다.

결과: 참여자들은 치매와 당뇨의 발병에 대해 우려를 크게 표현하였는데, 여기에는 건강 관련 TV 프로그램의 영향이 있다고 하였다. 개인 수준에서의 심뇌혈관질환 예방조치로서는 식이 조절을 강조하면서도 그 실천 및 유지에 있어 실질적인 어려움에 대한 우려도 나타내었다. 이는 이천권역과 같은 의료취약지역에서 개인 맞춤형 건강증진 개입이 필요함을 보여준다. 지역사회 수준의 개입은 외부에서의 명령(또는 지시)으로 받아들여져, 지역사회 기반 1차 의료에 대한 이해를 강화시킬 필요가 확인되었다. 향후 연구에서는 의료자원이 제한된 지역의 노인 인구를 대상으로 지역사회 기반 개입과 사회적 지원의 효과를 알아볼 수 있을 것이다.

결론: 본 연구는 의료취약지역에 거주하는 고령 여성들에서 보다 효과적인 심뇌혈관질환 예방을 위한 생활습관 변화에 대해 실질적인 정보 제공과 지역사회 기반 예방조치의 중요성을 강조한다.

중심단어: 고령; 심뇌혈관질환; 포커스 그룹; 여성

Correspondence to Dong-Hee Ryu Tel: +82-53-650-4494, Fax: +82-53-654-3881 E-mail: ryudh@cu.ac.kr Copyright © 2024 Korean Academy of Health Policy and Management This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/ licenses/by-nc/4.0) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

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INTRODUCTION

As the global population ages, the prevalence of cardiovascular disease (CVD) continues to rise [1]. Recent statistics from the "2022 cause of death" data by Statistics Korea show that heart disease is the second leading cause of death, with cerebrovascular disease ranking fifth [2]. Consequently, CVD is emerging as a significant public health issue in Korea.

With the extended average lifespan of women, their likelihood of exposure to CVD has increased. Despite being at relatively high risk for CVD [3-5], women are often underrepresented in prevention programs [6], leading to higher morbidity and mortality rates. This issue is particularly pronounced in medically underserved regions, such as the Icheon region which comprises Icheon and Yeoju, where efforts to address these disparities have been insufficient.

Icheon and Yeoju are part of the Seoul Capital Area an extensive zone covering Seoul, Incheon, and Gyeonggi province—but they are regions with limited medical resources [7]. The rates of persons 65 years and older are 15.6% in Icheon and 24.1% in Yeoju, respectively, indicating that Yeoju has already entered an ultra-aging society [8]. The high proportion of elderly residents makes the region more susceptible to CVD. Gyeonggi Provincial Medical Center Icheon Hospital (GPMCIH) in Icheon is the only

Table 1. Status of cardiovascular risk factors on Icheon region

general hospital in the region, yet local residents often seek medical services in nearby cities—from Seoul to Gangwon, Chungbuk, and Gyeonggi—reflecting a significant outflow of healthcare utilization. The 2021 relevance index (RI) for the general hospital of Icheon was 9.1% [9], while the overall RI for Gyeonggi stands at 69.9%, indicating very low local affinity for the Icheon region [9]. This regional imbalance in healthcare access can lead to critical outcomes, especially in emergencies involving CVD. As of 2019, the proportion of patients with myocardial infarction who visited the emergency room using a 911 ambulance was 41.2% in Icheon and 44.2% in Yeoju [8]. During the same period, the 911 utilization rate for stroke patients was 52.7% in Icheon and 46.8% in Yeoju, lower than the national and Gyeonggi averages [8].

Table 1 summarizes the results of the 2021 health checkup data from the National Health Insurance Service [10] and the 2022 Community Health Survey [11], providing a brief overview of the CVD risk factors in the Icheon region. In Icheon, 45.6% of individuals have high blood pressure, with 68.0% aware of their condition. The doctor-diagnosed rate is 19.8%. In Yeoju, these figures are slightly higher, with 51.5% having high blood pressure and 62.3% aware of their condition. The doctor-diagnosed rate is 26.7%. Additionally, 41.9% of people in Icheon have high blood sugar levels, with 48.0% aware of it, and a doctor-diagnosed rate

Variable	Subgroups	Nation	Gyeonggi	Icheon region	
				Icheon	Yeoju
Hypertension	High blood pressure*	44.6	44.2	45.6	51.5
	Awareness of one's blood pressure [†]	62.9	62.4	68.0	62.3
	Doctor-diagnosed rate (≥30 yr) [‡]	19.8	20.5	20.0	26.7
Diabetes	High blood sugar [§]	41.6	40.9	41.9	48.5
	Awareness of one's blood $sugar^{{\scriptscriptstyle \ }}$	28.4	28.6	40.8	22.9
	Doctor-diagnosed rate (≥30 yr)¶	9.1	8.9	7.0	9.1
Dyslipidemia	Hypertriglyceridemia [#]	17.9	18.0	16.5	19.9
	Low HDL cholesterolemia**	7.1	6.5	6.5	7.6

Values are age-adjusted.

HDL, high-density lipoprotein; BP, blood pressure; NHIS, National Health Insurance Service; CHS, Community Health Survey.

(2021, NHIS): individuals with systolic BP of 130 mm Hg or higher or diastolic BP of 85 mm Hg or higher, or those taking antihypertensive medication. [‡](2022, CHS): proportion of individuals aged 30 and older currently being treated for hypertension. [§](2021, NHIS): individuals with fasting blood glucose of 100 mg/dL or higher or these taking diabetes medication. [‡](2022, CHS): proportion of individuals who know their own blood sugar values. [§](2022, CHS): proportion of individuals with fasting blood glucose of 100 mg/dL or higher or these taking diabetes medication. [‡](2022, CHS): proportion of individuals who know their own blood sugar values. [§](2022, CHS): proportion of individuals with triglyceride levels of 150 mg/dL or higher, or those taking medication for dyslipidemia. ^{}(2021, NHIS): men with HDL cholesterol below 40 mg/dL women below 50 mg/dL or those taking medication for dyslipidemia.

of 9.1%. In Yeoju, 48.5% have high blood sugar, 22.9% are aware, and 8.9% are doctor-diagnosed. Hypertriglyceridemia affects 16.5% in Icheon and 19.9% in Yeoju. Low HDL cholesterol affects 7.1% in Icheon and 7.6% in Yeoju.

This study aims to explore ways to address these regional disparities and improve CVD prevention among older women. Specifically, we applied the health belief model (HBM) to understand CVD risk perception and preventive behaviors among women in Icheon and Yeoju. HBM is a theoretical framework useful for explaining and predicting individuals' perceptions and behaviors in managing chronic diseases [12], making it particularly suitable for analyzing the factors influencing older women's CVD preventive actions.

By considering the unique demographic and regional characteristics of Icheon and Yeoju, this study seeks to identify how women in these areas engage in CVD prevention and what barriers they face.

In this study, a single focus group based on the HBM was formed to investigate the followings [12]: (1) How do older women in the Icheon region perceive their risk of CVD? (2) What challenges and barriers do they face in engaging in preventive behaviors for CVD? (3) What conditions are necessary to promote behavior changes for CVD prevention among older women in the Icheon region?

The findings will highlight the need for region-specific CVD prevention programs and contribute to raising awareness about CVD prevention among older women.

METHODS

1. Study design

The contents and procedural protocol of this research were implemented with the approval of the Institutional Review Board of Daegu Catholic University Medical Center (approval number: CR-23-073-L). GPMCIH was not involved in subject recruitment, data acquisition, or data analysis.

2. Sampling

The study included six women aged 70 or older currently

residing in the Icheon region. Inclusion criteria required a diagnosis of two or more of the following: (1) hypertension, (2) diabetes or prediabetes, (3) dyslipidemia, or a diagnosis of CVD without surgery, clinical intervention, or procedures. Participants were conveniently sampled based on their attendance at health lectures at GPMCIH. Some participants were acquainted, while others were friends or neighborhood residents. However, not all participants were familiar with each other before the study.

Given the homogeneous nature of the participant group —older women in a medically underserved region who share similar socioeconomic backgrounds and health conditions, it was determined that a single focus group would be sufficient to explore the research question. During the focus group discussions, recurring themes and consistent patterns began to emerge, indicating that data saturation had been achieved. The participants repeatedly expressed similar concerns, experiences, and perceptions regarding their health, which suggested that additional focus groups were unlikely to yield new information, as these led to a convergence in the data. This approach was also informed by the explanatory characteristics of this study, which aimed to gain initial insights into the perceptions and experiences of this specific population.

3. Setting

On November 8, 2023, a focus group discussion took place at the GPMCIH conference room. Participants received reminders the day before and the morning of the interview to prevent no-shows. The conference room, approximately 3–4 m² in size with a central table, hosted two preventive medicine specialists as moderators. Besides six participants and two moderators, no other individuals were present. The entrance, near the moderators, housed recording devices. Seating positions were not designated, allowing the first participant to choose her seat. The focus group discussion session lasted 120 minutes. One of the moderators led the overall discussion, while the other closely observed verbal and nonverbal cues.

4. Discussion scenario development

The discussion scenario was developed based on the HBM. The participants of this study recognized that they were at risk of CVD and were well aware that this condition could potentially lead to serious consequences. In other words, health behaviors help reduce their perceived susceptibility and severity, and the benefits of these behaviors outweigh the barriers. Therefore, applying the HBM in this study was deemed appropriate.

1) Perceived threat

Assess whether participants were concerned about developing other illnesses due to their diagnosed chronic conditions, identify the specific illnesses they were most worried about, and comprehend the level of concern and factors contributing to their worries.

2) Perceived benefits and barriers

Participants were asked whether they considered CVD preventable and, specifically, about preventive activities they believed could be undertaken. In cases where participants perceived CVD as not preventable, the discussion aimed to identify the reasons behind this perception.

3) Self-efficacy and cues to action

The discussion sought to determine the participants' level of self-efficacy in practicing behavior changes related to the prevention of CVD and explored cues to action in this regard.

5. Data collection and analysis

All participants provided written informed consent, and the entire session was recorded with prior consent. Explanations about the research purpose, methods, and anonymity assurances were provided before the session. Participants received 100,000 Korean won (approximately US\$100) mobile gift cards for transportation, with no other economic incentives provided. Drinks and light refreshments were offered during the session. Mobile gift cards were issued afterward, and each participant signed a payment confirmation. The transcript, created post-session, underwent in-depth analysis. The moderators verified the completed transcript after multiple reviews. Observer's notes were incorporated for context. Microscopic analysis identified codes, themes, categories, and key quotations [13]. Fourteen themes were derived under four categories, and 69 codes were sorted (Table 2). New codes were formed as needed. No qualitative data analysis software was used; all analyses were author-conducted. Results were compiled through cross-checking. In cases of differences in coding results, agreement was reached through discussion. The recorded file was discarded post-analysis.

RESULTS

1. Participants

The demographic characteristics of the participants are shown in Table 3. The average age was 75.7 years, with the oldest participant being 82 years and the youngest 72 years. Two participants had received education beyond junior high school. All participants were diagnosed with dyslipidemia, and all except one were on medication. One participant had a history of a condition suspected to be cerebral infarction, but she was unsure of the specific diagnosis, and she had not undergone surgery, clinical intervention, or procedures.

2. Perceived threat and cues to action

The study participants were fully aware of their health conditions and the potential threats they might face in the future. In the context of this study, perceived threat refers to the specific illnesses participants were most worried about, the level of their concern, and the factors contributing to these worries. In this focus group, dementia emerged as the most concerning illness, being mentioned first and underscored as a significant issue. Although participants did not explicitly reference vascular dementia, there was a general awareness within the group that dementia could result from their underlying health conditions.

Category (4)	Themes (14)	Codes (69)	Descriptions
Perceived threat	Dementia	Dementia; going wrong in the brain	Participants define dementia with their own words
		Burden to my family	Comments related to the reasons for the concern
		Alarming, cautious, concern, concerning illness; worrisome	Expression of feelings about dementia
	Diabetes/prediabetes	Diabetes; pre-diabetic	Participants define diabetes/prediabetes with their own words
		Diabetic complications	Concerns related to diabetes
	Health-related TV programs	Broadcasting on television; television; health-related programs on various channels	Participants define health-related TV programs with their own words
		Alarming, concern, worrisome	Expression of feelings about the health-related TV program
	Dyslipidemia	Triglycerides; chronic disease; cholesterol	Participants define dyslipidemia with their own words
		Regular visits to the hospitals; medication	Measures associated with dyslipidemia control
	Hypertension	Family history	Family history related to hypertension
		Medication	Measures associated with hypertension control
Perceived benefits	Dietary control	Healthy diet; dietary control; food; eat(ing); dietary management; meal; healthy meal; lifestyle improvements	Participants define dietary control with their own words
	Blood pressure management	Blood pressure management	Health behaviors that would be beneficial
	Weight management	Weight management	Health behaviors that would be beneficial
	Exercise	Exercise	Health behaviors that would be beneficial
Perceived barriers	Dietary control barriers	Digestive problem; maintenance problem; challenges in suppressing appetite; limitations to eating; aged	Comments related to the reasons why dietary control is difficult and/or hard to accomplish/maintain
Self-efficacy/cue to action	Health lectures	Health lecture; knowledge gained from the lecture; experience of learning and listening; health lecture at GPMCIH; completion of health lecture course; programs	Participants define health lectures with their own words
		Singing classes; pottery classes; exercise programs	Examples of health lectures that participants defined
		Welfare center; lifelong learning centers; women's centers; public health center; GPMCIH	Locations of health lectures
	Physical activities	Exercise; stretching; walking; golf; walk around the neighborhood; go out	Participants define physical activities that they are involved in
	Consumption of nutritional supplements	Nutritional supplements; lutein; multi-vitamins; calcium; chondroitin; vitamins	Participants define consumption of nutritional supplements with their own words
		Alleviate psychological anxiety; mental well-being;	Comments related to the reasons for the consumption
	Acquaintances	Presence of like-minded friends	Comments related to the cues to action

Table 2. Codebook

GPMCIH, Gyeonggi Provincial Medical Center Icheon Hospital.

Table 3. Demographic characteristics of the study participants

Characteristic	Value
Age (yr)	75.7
Education (<high school)<="" td=""><td>4 (66.7)</td></high>	4 (66.7)
Household income (<2,000,000 KRW)	5 (83.3)
Body mass index (kg/m²)	27.0
Doctor-diagnosed	
Hypertension	5 (83.3)
Prediabetes	2 (33.3)
Dyslipidemia	6 (100.0)
Cardiocerebrovascular disease (suspected)	1 (16.7)

Values are presented as mean or number (%).

KRW, Korean won (1,000 KRW is approximately US\$1).

(Participant 2) "The first one is dementia."

(Participant 5) "It's unlikely to happen since I manage my blood pressure, but I'm worried about something going wrong in the brain."

(Participant 4) "Oh, yes. That's right. The first one is dementia."

(Participant 6) "I will become a significant burden to my family if I develop dementia."

Individuals diagnosed with prediabetes also expressed concerns about diabetes and its complications, stating that they worry about it because "whenever I go to the hospital, the doctor always checks it for me." In addition to perceived threats, certain external factors can influence participants' health behaviors. Concerns related to their diagnosed condition increase not only due to the illnesses and deaths of their acquaintances but also due to health-related television programs. These health-related television programs may act as cues to action, prompting participants to be more vigilant about their health behaviors.

(Participant 2) "When something is broadcasting on television, and that program comes on, you know, then I'm like 'Uh oh."

(Participant 5) "There are so many of them, you know. When you turn on the television, there are so many health-related programs on various channels, and there are a lot of them at different time slots."

3. Perceived benefits and barriers

To assess perceived benefits and barriers, participants were asked if they believed CVD could be prevented and, more specifically, what preventive measures they thought could be taken. Additionally, the perception of the value of preventive measures was examined. All participants responded that they believed they could prevent the occurrence of CVD on a personal level. Since all participants were diagnosed with dyslipidemia, they were all aware of the correlation between blood cholesterol levels and CVD risk. Health behaviors that enable the prevention of CVD, such as dietary control, blood pressure management, exercise, and weight management, were mentioned. Dietary control, in particular, had a significant impact on this focus group, bringing about a considerable group dynamic. While everyone agreed on the premise that dietary control itself is helpful in preventing and managing CVD, there was a discussion about the feasibility of its practice. Barriers to maintaining a healthy diet included digestive issues, difficulty in maintaining consistency, challenges in suppressing appetite, and lack of information.

(Participant 5) "I think everything will be fine if I eat

well."

(Participant 2) "It doesn't go as planned though." (Participant 5) "You can't just completely stop eating what you enjoy, but little by little, it works. I believe that everything can be fixed through dietary management. That's why I do a lot of dietary control."

In other words, participants understood that lifestyle improvements through dietary control could contribute to the prevention and management of CVD. However, they lacked specific methods for practicing dietary control and had doubts about the feasibility of implementing it.

(Participant 2) "There are limitations to eating, both meat and vegetables, right? As you get older, you naturally can't eat as much. If you eat a satisfying meal once, you might not feel like eating the next time." (Participant 1) "Yeah, you don't feel like eating much." (Participant 4) "Well, even if it's just a small snack, like sweet potatoes or something, it makes you skip the next meal, so I think that's why."

On the other hand, when questioned about whether stress management would be helpful in preventing CVD on a personal level, all participants expressed that it did not apply to them.

In this focus group, participants exhibited a tendency to interpret direct program offerings more meaningful than the chronic disease management system at the community and national levels. Most participants perceived activities such as singing classes, pottery classes, and exercise programs conducted at welfare centers, lifelong learning centers, or women's centers, as health lectures.

4. Behavioral change: self-efficacy

The discussion regarding self-efficacy aimed to assess participants' confidence in their ability to implement behavior changes for CVD prevention. The participants in the focus group had experiences attending health lectures conducted at GPMCIH, and none of them had participated in health lectures outside of those held at GPMCIH. This was attributed to the absence of institutions providing such services within the area, as reported by the participants. Due to the reduction in the functions of public health centers during the coronavirus disease 2019 pandemic, participants were not aware that programs previously conducted at public health centers had resumed. In response to the query about satisfaction with the health lectures at GPM-CIH, all participants stated that they had found them very helpful in their daily lives. While they might not express or convey the knowledge gained from the lectures directly, the experience of listening and learning was deemed beneficial. In essence, the prevalent opinion was that even if participants did not actively share the knowledge acquired from the health lectures, the experience itself was helpful. Additionally, the participants exhibited a high sense of selfefficacy regarding health behavior improvement through participation in health lectures. The motivation for attending these lectures was often influenced by the presence of like-minded friends joining them.

(Participant 5) "You become more aware that you need to be careful about things like this ... In my case, because there's a family history of high blood pressure, I'm very careful and I'm trying hard to manage it well... Listening to such lectures, even if I don't fully understand, just knowing that it's an illness makes me cautious."

1) Physical activities

It was assumed that the participants in the focus group had a high level of self-efficacy regarding exercise. All participants engaged in physical activities, including simple stretching, walking, and golf. The high self-efficacy for exercise was rooted in the psychological anxiety about the worsening of their diagnosed chronic conditions. They believed that practicing exercise could prevent the deterioration of their chronic conditions.

(Participant 6) "After waking up in the morning, around 6 o'clock, I have breakfast, do some simple stretching, and

engage in a lot of physical activities."

(Participant 2) "In the morning ... I take a walk around the neighborhood, visit the welfare center, and in the evening, without missing a single day, I spend about 40 minutes walking around the playground."

(Participant 3) "In our case, we form a group and play golf in the neighborhood. We go out every morning. We do it together."

(Participant 5) "We do it together."

(Participant 6) "We should exercise, walk every day. They always say to walk. We have to do this to avoid getting sick. There's no other reason."

2) Consumption of nutritional supplements

Another health behavior for alleviating psychological anxiety was the consumption of nutritional supplements. Participants indicated that taking nutritional supplements offered a psychological sense of stability in health management, rather than seeking direct health benefits from supplement consumption.

(Participant 2) "It seems like it suits your mental wellbeing."

DISCUSSION

The findings of this study shed light on the awareness and perceptions of older women in the Icheon region regarding CVD.

1. Health concerns

The participants in this study expressed the greatest concern about dementia and diabetes, differing from previous research indicating a tendency for cancer to be the primary concern [14,15]. While the difference could be attributed to variations in ethnicity, given that the previous studies were conducted in the United States, it seems more appropriate to interpret it as a result of differences in the age groups of the study participants. The average age of participants in this study was considerably higher than in previous research [14,15], suggesting that age plays a crucial role in shaping health threats. In Icheon, an area with limited healthcare resources, the older population might be more attuned to the risks of chronic conditions like CVD, which are prevalent in their age group [16]. This heightened awareness aligns with the age-related increase in CVD prevalence and reflects the region's limited access to specialized care, which may amplify concerns about managing multiple chronic conditions effectively. In addition, in this focus group, participants expressed increased concerns about dementia after witnessing dementia patients in their surroundings. Understanding that the participants' social background is connected to the psychological burden of disease, it is also important to strengthen social support networks.

In this study, it was found that health-related television programs were a factor triggering concerns about health issues due to chronic disease among participants. While television broadcasts are commonly thought to effectively convey health-related knowledge and promote appropriate health behavior change, the unexpected finding here is that exposure to such programs is associated with increased health concerns. A previous study reported that women exposed to more information about cervical cancer in television programs were more worried about developing the condition [17]. Therefore, adjusting broadcasting formats and moderating program content is recommended. This is particularly relevant in Icheon, where residents may have fewer opportunities for direct healthcare engagement, making media a primary source of health information.

2. Individual-level implementations

Modifiable CVD risk factors are well-known, including three principal factors: hypertension, dyslipidemia, and smoking [18-20]. Since all participants in this study were never smokers, there was no discussion regarding smoking. However, they shared a common characteristic of being diagnosed with dyslipidemia and hypertension. This led to discussions on health behavior changes, including dietary control, exercise, and weight management, as practical approaches to reducing CVD risk in this group. The emphasis on these behaviors in Icheon, a region with limited healthcare access, reflects the participants' recognition of their role in managing CVD risk independently. Unlike younger populations, who might lack awareness of the relationship between cholesterol levels and CVD risk, older women in this study were acutely aware of the need to manage their conditions through lifestyle modifications. This awareness likely stems from their lived experiences in a region where access to preventive healthcare services is constrained, making personal health management strategies more critical. However, challenges and doubts about the feasibility of dietary control were highlighted, emphasizing the need for specific practical information on dietary changes tailored to older women who face age-related barriers such as digestive issues and decreased appetite. These findings highlight the importance of providing specific, practical dietary advice tailored to the needs of older women in the Icheon region. Given the region's healthcare limitations, such targeted interventions are crucial for empowering residents to manage their health effectively.

3. Community-based intervention

The participants with chronic conditions clearly expressed personal competence in improving health behaviors, either for better health outcomes or to prevent the worsening of their current conditions. However, they perceived interventions at the community and national levels as directives from others and demonstrated resistance. This can be attributed to a lack of understanding of the chronic disease management system available in the Icheon region. Given the region's status as a medically underserved area, enhancing the healthcare infrastructure at the community level is essential. However, the study suggests that simply implementing community-level interventions may not be enough; these initiatives must be accompanied by efforts to build trust and understanding among the local population.

One way to overcome this is to consider the application of social networking. Social networks have been shown to decrease the incidence of CVD, depression, and mortality [21]. In the Icheon region, where healthcare access is limited, fostering social connections among individuals with similar health interests could enhance participation in health-promoting activities. In this focus group, there was an opinion that having friends who share an interest in health behavior management activities makes participation even more likely. Therefore, developing community-based programs that emphasize social support and peer involvement could be particularly effective in this context. Additionally, measures such as targeted health education or agespecific interventions should be implemented to alleviate health disparities in the region. Interventions employing media, environmental changes, and counseling activities would be helpful [22]. Moreover, improving the local environment to be more health-friendly, developing and implementing health programs using local government budgets, and establishing monitoring plans could be beneficial.

4. Limitations

While the findings provide valuable insights, several limitations should be stated. First, this study focused solely on a single focus group in the Icheon region, which may raise concerns about data saturation. We acknowledge that future studies should consider conducting multiple focus groups to confirm and expand the findings of this study. Second, due to the limitations inherent in the focus group research method, the study results cannot be generalized to all older women with CVD. Third, participants in this study had prior experience attending health lectures, and therefore, the possibility of selection bias cannot be excluded. Future studies could benefit from combining qualitative and quantitative approaches to offer a more comprehensive understanding of CVD and preventive behaviors among this population, particularly within the unique context of medically underserved regions like Icheon.

5. Conclusions

In summary, this research provides valuable insights into the awareness and perceptions of CVD risk factors among older women in the Icheon region. The identified themes provide a foundation for developing targeted interventions and educational initiatives to enhance CVD prevention measures within this particular region. Subsequent studies could investigate the efficacy of community-based interventions and the impact of social support on sustaining health behavior changes among older populations in regions with limited medical resources.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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