The Role of Health Cadres Significantly Influences Elderly Participation in the Elderly Integrated Health Service Post

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ABSTRACT
The Elderly Integrated Health Service Post functions as an early detection program for health problems among older adults. Attendance of elderly individuals at this service is influenced by several factors, one of which is the role of health cadres. Cadres act as community mobilizers, provide health education, and monitor elderly health conditions. This study aims to determine the relationship between the role of health cadres and the attendance of elderly individuals in the Elderly Integrated Health Service Post at the working area of Raya Health Center, Teladan Subdistrict, Pematangsiantar City. A cross-sectional design was employed. The population consisted of 375 elderly individuals aged 60–80 years. A sample of 94 respondents was selected using systematic random sampling. Data were collected through questionnaires and analyzed using Spearman's Rho test. The hypothesis test yielded a p-value of 0.000, indicating a significant relationship between the role of health cadres and the activeness of elderly individuals in attending the Elderly Integrated Health Service Post in Teladan Subdistrict, Pematangsiantar City. In conclusion, the findings demonstrate that the role of health cadres significantly influences elderly participation in the Elderly Integrated Health Service Post. Strengthening cadre involvement may enhance elderly attendance and improve early detection of health problems.
Keywords: Elderly Integrated Health Service Post; health cadres; elderly attendance

INTRODUCTION
An elderly individual is defined as someone aged 60 years and above [1,2]. The elderly population represents the final stage of the human life cycle, characterized by the natural process of aging. Inactivity in attending the Elderly Integrated Health Service Post may lead to several negative consequences, such as neglected health, lack of access to health information, limited opportunities for social support, and decreased quality of life. Conversely, active participation provides positive impacts including improved health, access to updated information on healthy lifestyles and chronic disease management, enhanced social support from peers and health workers, and overall better quality of life [3].

Health cadres play a crucial role in promoting elderly health activities within the Elderly Integrated Health Service Post [4-6]. Their responsibilities include mobilizing the community, conducting health education, and monitoring elderly health conditions [7]. The Ministry of Health of the Republic of Indonesia (2020) recommends a minimum of four cadres per service post, though more are often required to ensure optimal service delivery, especially in areas with large elderly populations [8].

The proportion of elderly individuals in Southeast Asia is increasing rapidly. In Indonesia, projections indicate that the elderly population will reach 27.08 million in 2020, 33.69 million in 2025, 40.95 million in 2030, and 48.19 million in 2035 [8]. In North Sumatra, 6.3% of the population (820,990 individuals) are elderly, while in Medan City, 10% of the population (201,413 individuals) are elderly [9]. In Simalungun Regency, the elderly population in 2019 was 47,928, and in Pematangsiantar City, the elderly population in 2020 was 268,254 [10].

A preliminary survey conducted by the researcher revealed that in the working area of Raya Health Center, Pematangsiantar City, there are 1,330 elderly individuals. In Teladan Subdistrict, 375 elderly individuals were recorded, with 103 (27.4%) actively participating and 272 (72.5%) inactive. Comparatively, Timbang Galung Subdistrict had 350 elderly individuals, with 220 (62.8%) active; Proklamasi Subdistrict had 305 elderly individuals, with 221 (72.4%) active; and Dwikora Subdistrict had 300 elderly individuals, with 210 (70%) active. Based on the Raya Health Center profile, there are 24 cadres across the working area, with each subdistrict having six cadres. Teladan Subdistrict was identified as having the highest proportion of inactive elderly individuals (72.5%).

This study aims to determine the relationship between the role of health cadres and the attendance of elderly individuals in the Elderly Integrated Health Service Post at the working area of Raya Health Center, Teladan Subdistrict, Pematangsiantar City in 2024. Specifically, the research focuses on assessing the cadres' role in mobilizing elderly participation, conducting health education, and monitoring activities, as well as analyzing how these roles influence the activeness of elderly attendance.

METHODS
This study was conducted in the working area of Raya Health Center, Teladan Subdistrict, Pematangsiantar City, from May to July 2024. The study employed an analytic survey with a cross-sectional design [11], in which both independent and dependent variables were examined simultaneously to determine the relationship between the role of health cadres (independent variable) and elderly attendance at the Elderly Integrated Health Service Post (dependent variable).

The study population consisted of 375 elderly individuals aged 60–80 years residing in Teladan Subdistrict, Pematangsiantar City. Using Slovin's formula [11], the required sample size was calculated as 93.75, rounded to 94 respondents. Sampling was conducted through systematic random sampling to ensure representativeness.

Independent variable was the role of health cadres in mobilization, health education, and monitoring activities. Dependent variable was elderly attendance at the Elderly Integrated Health Service Post. Data were collected using structured questionnaires. The role of health cadres was measured through items assessing mobilization, education, and monitoring functions. Elderly attendance was measured by frequency and activeness in participating in service post activities. Data were analyzed descriptively in the form of frequwncy and percentage [13-15], then using Spearman's Rho correlation test [16] to determine the relationship between the role of health cadres and elderly attendance. A significance level of $p < 0.05$ was applied.

RESULTS

Based on Table 1, the majority of respondents were within the younger elderly age group of 60–70 years (56.4%), while those aged 71–80 years accounted for 43.6%. This indicates that most participants were in the early stage of old age, which may influence their level of activity and participation in health programs. In terms of gender, females represented a slightly higher proportion (53.2%) compared to males (46.8%), suggesting that women may be more engaged in community health activities. Regarding education, the largest group had completed senior high school (42.6%), followed by higher education graduates (23.4%). This relatively high level of education among respondents could contribute to better awareness of health services and the importance of participation.

As shown in Table 2, the highest positive responses were related to cadres filling in health cards (90.4%) and providing health education (92.6%), reflecting strong performance in administrative and educational roles. However, a notable weakness was observed in monitoring activities, where 63.8% of respondents reported that cadres never monitored elderly individuals during service post activities. This gap highlights the need for strengthening the monitoring function to ensure continuous health follow-up.

In Table 3, most respondents (83.0%) rated the overall role of cadres as "Fair," while only 13.8% considered it "Good" and 3.2% "Poor." This suggests that although cadres are fulfilling their responsibilities, there is room for improvement, particularly in areas such as monitoring and preparation of facilities.

Table 1. Characteristics of respondents by age, gender, education, and attendance at the Elderly Integrated Health Service Post

Characteristics	Frequency	Percentage
Age (years)		
60–70	53	56.4
71–80	41	43.6
Gender		
Female	50	53.2
Male	44	46.8
Education		
No schooling	0	0.0
Elementary	13	13.8
Junior high	19	20.2
Senior high	40	42.6
Higher education	22	23.4

Table 2. Distribution of health cadres' roles in the Elderly Integrated Health Service Post

No	Statement	Always: f (%)	Often: f (%)	Sometimes: f (%)	Never: f (%)
1	Cadres prepare facilities before activities	9 (9.6)	29 (30.9)	56 (59.6)	0 (0.0)
2	Cadres invite elderly to attend	79 (84.1)	13 (13.8)	1 (1.1)	1 (1.1)
3	Cadres provide health education	0 (0.0)	87 (92.6)	3 (3.2)	4 (4.3)
4	Cadres inform location of activities	11 (11.7)	32 (34.0)	45 (47.9)	6 (6.4)
5	Cadres give guidance during activities	5 (5.3)	38 (40.4)	46 (48.9)	5 (5.3)
6	Cadres inform schedule of next meeting	5 (5.3)	27 (28.7)	60 (63.8)	2 (2.1)
7	Cadres prepare first aid kit	0 (0.0)	0 (0.0)	47 (50.0)	47 (50.0)
8	Cadres cooperate with other cadres	0 (0.0)	83 (88.3)	11 (11.7)	0 (0.0)
9	Cadres fill in health cards (KMS)	85 (90.4)	9 (9.6)	0 (0.0)	0 (0.0)
10	Cadres monitor elderly during activities	0 (0.0)	2 (2.1)	32 (34.0)	60 (63.8)

Attendance patterns, presented in Table 4, revealed that the majority of elderly respondents (63.8%) were inactive in attending the Elderly Integrated Health Service Post, while only 36.2% were active. This imbalance indicates that despite the presence of cadres, many elderly individuals remain disengaged, which could negatively impact early detection and management of health problems.

Finally, Table 5 demonstrates the statistical relationship between cadres' roles and elderly attendance. The Spearman's rho correlation coefficient was 0.569 with a p-value < 0.001, confirming a significant positive correlation. This means that improvements in the role of cadres, particularly in mobilization, education, and monitoring are directly associated with increased attendance among elderly individuals. The positive direction of the correlation suggests that the more effective the cadres' involvement, the higher the likelihood of elderly participation in health service post activities.

Overall, these findings emphasize that while cadres are performing adequately in certain areas, their role remains crucial in enhancing elderly attendance. Strengthening cadre functions, especially in monitoring and follow-up, could significantly improve participation rates and ultimately contribute to better health outcomes for the elderly population.

Table 3. Distribution of cadres' role categories in the Elderly Integrated Health Service Post

Role	Frequency	Percentage
Good	13	13.8
Fair	78	83.0
Poor	3	3.2

Table 4. Distribution of elderly attendance in the Elderly Integrated Health Service Post

Attendance	Frequency	Percentage
Active	34	36.2
Inactive	60	63.8

Table 5. Relationship between cadres' role and elderly attendance in the Elderly Integrated Health Service Post

			Cadres' role	Elderly attendance
Spearman's rho	Cadres' role	Correlation coefficient	1.000	0.569
		p-valu	.	0.000
		n	94	94
	Elderly attendance	Correlation coefficient	0.569	1.000
		p-value	0.000	.
		n	94	94

DISCUSSION

The role of cadres at the Elderly Integrated Health Service Post

Cadres of the Elderly Integrated Health Service Post are community members who are willing, capable, and have sufficient time to voluntarily organize activities at the service post. According to prior research, one of the cadre's roles is mobilizing the community by encouraging older

adults to attend the Elderly Integrated Health Service Post, disseminating health information, conducting joint data collection with health workers, and facilitating community discussions, such as determining the schedule of service-post activities [17]. Other researchers further emphasize that one of the roles of cadres is providing basic assistance to older adults [18-20].

Findings from the study indicate that the role of cadres in monitoring older adults during activities at the Elderly Integrated Health Service Post remains insufficient. Among 94 respondents, only 13 respondents (13.8%) stated that the cadre's role was good. Most older adults reported that cadres consistently filled out the *Kartu Menuju Sehat* (KMS) after each visit and frequently provided health education. This suggests that cadres in Kelurahan Teladan are active in monitoring and educating older adults during activities at the Elderly Integrated Health Service Post.

Cadres aim to provide support and assistance because older adults often require additional help to understand administrative procedures or overcome physical limitations. Cadres offer this assistance in a friendly and attentive manner. They also help ensure that recorded data are accurate and complete so that the health needs of older adults can be properly monitored. This research highlights that one of the main objectives of health education is increasing older adults' knowledge about their health, including disease prevention and management of chronic conditions. Her study emphasizes the importance of health education in reducing disease risk and improving the quality of life of older adults [21].

Most older adults stated that cadres *sometimes* prepared facilities and infrastructure before activities at the Elderly Integrated Health Service Post, with 56 respondents (59.58%). Putri and Raharjo (2020) found that cadres often prepare facilities independently or with support from the local community, including arranging the activity space, medical equipment, and educational materials. This preparation aims to ensure smooth implementation and motivate older adults to participate more actively [22].

Most older adults also stated that cadres *always* encouraged them to attend activities at the Elderly Integrated Health Service Post, with 79 respondents (84.05%). Prior research demonstrated that personal approaches such as home visits and direct communication are highly effective in increasing attendance. Cadres who actively conduct home visits and personal meetings show higher attendance rates. The researchers recommend increasing home visits and using more direct communication strategies to enhance participation [23].

Furthermore, most older adults stated that cadres *often* provided counseling on the benefits of attending the Elderly Integrated Health Service Post, with 87 respondents (92.55%). This aligns with prior research, who found that counseling significantly reduces older adults' lack of knowledge about available programs. Counseling increases awareness and encourages active participation. Their study recommends comprehensive and easy-to-understand counseling [24].

Regarding information about the venue, most older adults stated that cadres *sometimes* informed them about the location of the Elderly Integrated Health Service Post, with 45 respondents (47.87%). Ayu and Santoso (2019) identified factors affecting the effectiveness of information delivery, including limited use of appropriate communication media, lack of regular updates, and low community involvement. They recommend using more effective communication media and ensuring regular dissemination of updated information [25].

Most older adults also stated that cadres *sometimes* provided guidance during activities at the Elderly Integrated Health Service Post, with 46 respondents (48.93%). Rahmawati and Anwar (2021) found that cadres often provide insufficient guidance due to limited time, inadequate training, and communication issues, resulting in older adults not fully understanding procedures and benefits [26].

In terms of schedule notification, most older adults stated that cadres *sometimes* informed them about upcoming sessions, with 60 respondents (63.83%). Kurniawan (2022) found that poor coordination, limited training, resource constraints, and technological challenges hinder effective schedule dissemination. Most older adults stated that cadres *sometimes* or even *never* prepared first-aid kits, with 47 respondents (50%) [27]. Haryanto (2022) found that many Elderly Integrated Health Service Posts do not provide first-aid kits due to limited attention to safety, budget constraints, and lack of training. Most older adults stated that cadres *often* collaborated with other cadres [28]. Sari (2021) found that collaboration positively influences performance, allowing better task distribution and improved service quality. Most older adults stated that cadres *always* filled out KMS after activities, with 85 respondents (90.43%) [7]. Rachmawati (2021) found that most cadres comply with KMS procedures, although issues such as delays and data inaccuracies still occur. Finally, most older adults stated that cadres *never* conducted monitoring during activities, with 60 respondents (63.83%) [29].

Attendance of older adults at the Elderly Integrated Health Service Post

Attendance is a crucial aspect for monitoring and improving older adults' health. The Elderly Integrated Health Service Post is a community-based health service designed to meet the health and welfare needs of older adults. "Pos Pelayanan Terpadu" is the Indonesian term for this community-based health facility. Most older adults' attendance was categorized as *moderate*, with 78 respondents (83.0%). This occurred due to insufficient cadre roles in mobilizing older adults, particularly in informing them about upcoming schedules. As noted earlier, 60 respondents (63.83%) answered "sometimes" regarding schedule notification. The hallenges include ineffective schedule management, poor planning, and limited information distribution. He recommends improving cadres' information management skills, using digital tools, and enhancing planning. Researcher identified constraints such as limited resources, inadequate communication methods, and low cadre awareness. Solutions include training on social media use and better communication tools [30].

Relationship between cadre roles and attendance at the Elderly Integrated Health Service Post

The results showed a significant relationship between cadre roles and older adult attendance. The correlation coefficient was *0.569*, indicating that better cadre performance is associated with higher attendance. Prior researcher found that cadres play a crucial role in providing support and motivation for older adults to participate. Rahayu (2022) also found that attendance is strongly influenced by cadres' active roles, including their ability to inform schedules, provide moral support, and motivate older adults [31].

Implications of the study for health

The findings of this study carry several important implications for community health, particularly in the management and promotion of elderly well-being. First, the generally adequate but still inconsistent performance of cadres highlights the need for strengthened training programs focused on monitoring skills, communication strategies, and elderly-centered guidance. Enhancing these competencies can directly improve the quality of health services delivered at Elderly Integrated Health Service Posts.

Second, the low level of attendance among older adults underscores the critical role of effective mobilization and timely dissemination of information. Improving communication systems, such as structured scheduling, reminder mechanisms, and personalized outreach can increase participation, which is essential for early detection of health problems, continuity of care, and prevention of chronic disease complications.

Third, the demonstrated positive relationship between cadre performance and elderly attendance indicates that empowering cadres is a strategic entry point for improving population-level health outcomes. Stronger cadre engagement can lead to more consistent health monitoring, better adherence to health programs, and enhanced health literacy among older adults.

Overall, the study suggests that investing in cadre capacity building, communication improvements, and structured monitoring systems can significantly strengthen community-based elderly health services and contribute to healthier aging at the population level.

CONCLUSION

The study indicates that the role of cadres at the Elderly Integrated Health Service Post is generally perceived as adequate, although monitoring of older adults during service-post activities remains limited. Older-adult attendance tends to be inactive, largely due to insufficient mobilization and inconsistent communication of upcoming schedules. The findings also show a clear positive relationship between cadre performance and attendance, suggesting that stronger cadre engagement, better guidance, and more effective communication directly enhance older adults' participation in health-service activities.

Ethical consideration, competing interest and source of funding

-This study adhered to ethical principles of research involving human subjects, including informed consent, confidentiality, and voluntary participation. Approval was obtained from the relevant health authorities prior to data collection.
-There is no conflict of interest related to this research.
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