

Enablers and Barriers of Healthcare Services for Community-Dwelling Elderly in Rural Indonesia: A Qualitative Evidence Synthesis

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Keywords

Meta-aggregation · Barriers and enablers of healthcare · Community-based healthcare · Community-dwelling elderly · Rural Indonesia

Abstract

Introduction: Healthcare services for elderly populations in Indonesia have been arranged in both institutional and community services. However, only a small number of elderly individuals reside in this residential aged care home setting because of cultural norms in Indonesian communities. Poor health infrastructure is still the main constraint, particularly in rural communities, although they have the adequate social capital to deal with restrictions. It is important to explore the existing implementation of healthcare services for elderly populations in rural Indonesia to shed light on appropriate policy interventions. This review aimed to identify and synthesize relevant evidence in Indonesia regarding the barriers and enablers of healthcare for elderly individuals in rural settings. **Methods:** This study used a qualitative evidence synthesis method. The search strategy aimed to locate published studies. An initial limited search of PubMed, Web of

Science, ScienceDirect, Embase, PsycINFO, and CINAHL was conducted to identify articles on the topic that were published in English from 2010 to 2020. A meta-aggregation approach was used to pool qualitative study findings, employing JBI SUMARI software. **Results:** Four synthesized statements emerged from the study analysis: (1) integration needs among institutional and community-based healthcare for elderly people in rural areas, (2) the quality of integrated health services for elderly populations must be improved, (3) community support will improve and ensure the sustainability and implementation of community-based healthcare for elderly populations, and (4) community and family awareness must be improved to support care for the elderly. These were substantial insights that can be used to address key challenges in existing healthcare services and improve the system by considering specific features of enablers and barriers. **Conclusion:** A collaboration between communities, healthcare institutions, families, and government authorities was needed to support the success of the program and maintain the sustainability of services, which will result in adequate healthcare for the elderly population and improved health overall in rural Indonesia.

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Facilitadores e barreiras dos serviços de saúde para os idosos das comunidades nas zonas rurais da Indonésia: uma síntese qualitativa das provas

Palavras Chave

Meta-agregação · Barreiras e facilitadores de cuidados de saúde · Cuidados de saúde baseados na comunidade · Idosos que habitam na comunidade · Indonésia rural

Resumo

Introdução: Os serviços de saúde para populações idosas na Indonésia foram organizados em serviços institucionais e comunitários. No entanto, apenas um pequeno número de idosos residem neste lares residenciais de idosos devido às normas culturais nas comunidades indonésias. A má infraestrutura sanitária continua a ser o principal constrangimento, particularmente nas comunidades rurais, embora estas tenham capital social adequado para lidar com as restrições. É importante explorar a atual implementação de serviços de saúde para as populações idosas na Indonésia rural, a fim de esclarecer as intervenções políticas adequadas. O objetivo desta análise foi identificar e sintetizar provas relevantes na Indonésia relativamente às barreiras e facilitadores dos cuidados de saúde para idosos em ambientes rurais.

Métodos: Este estudo utilizou um método qualitativo de síntese de evidências. A estratégia de pesquisa visou a localização de estudos publicados. Foi realizada uma pesquisa inicial limitada do PubMed, Web of Science, ScienceDirect, Embase, PsycINFO, e CINAHL com o objetivo de identificar artigos sobre o tema que foram publicados em inglês de 2010 a 2020. Foi utilizada uma abordagem de meta-agregação para reunir resultados de estudos qualitativos utilizando o software JBI SUMARI.

Resultados: Quatro declarações sintetizadas emergiram da análise do estudo: (1) a necessidade de integração entre os cuidados de saúde institucionais e comunitários para idosos nas zonas rurais; (2) a qualidade dos serviços de saúde integrados para as populações idosas deve ser melhorada; (3) o apoio comunitário melhorará e garantirá a sustentabilidade e implementação de cuidados de saúde baseados na comunidade para as populações idosas, e (4) a consciência comunitária e familiar deve ser melhorada para apoiar os cuidados de saúde dos idosos. Estas foram informações fundamentais que podem ser utilizadas para enfrentar os principais desafios dos serviços de saúde existentes e melhorar o sistema, considerando as características específicas dos facilitadores e barreiras. **Discussão/Conclusão:** Foi necessária uma

colaboração entre comunidades, instituições de saúde, famílias e autoridades governamentais para apoiar o sucesso do programa e manter a sustentabilidade dos serviços, o que resultará em cuidados de saúde adequados para a população idosa e na melhoria geral da saúde nas zonas rurais da Indonésia.

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Introduction

Indonesia is facing a crucial demographic shift, with an increase in the number of older people (i.e., 60 years and over), transforming the demographic structure into an ageing population [1, 2]. Based on the 2010 population census, the number of elderly individuals in Indonesia was 18.1 million (7.6% of the total population), and it is projected that the number will increase to 33.7 million (11.8%) and 48.2 million (15.8%) by 2020 and 2035, respectively [2]. In terms of life expectancy, Indonesia has made progress in prolonging the population's life; however, the shifting age structure toward higher-age groups has led to consequences regarding the availability of health services for such populations, including healthcare financing and expenditures required [3].

The introduction of the universal health coverage insurance scheme in 2014 was another milestone regarding the government's commitment to securing a healthcare financing system as a policy option that can help address the challenge of future ageing populations in Indonesia [4, 5]. This program has influenced the readiness of health services that respond to ageing populations. With a comprehensive benefits scheme that covers most outpatient and inpatient care, enlists public and private health providers, and has enrolled almost 225 million people (i.e., 85% of the total population) by the end of 2019, the program has significantly contributed to healthcare provisions for the majority of Indonesian people, including the elderly [5, 6]. However, the lack of long-term care facilities has also affected the access and quality of services, particularly in resource-poor settings such as rural and remote areas [7].

Currently, the increasing number of older adults in Indonesia has not been addressed by specific programs for the elderly. The healthcare system continues to focus on an agenda to address infectious diseases such as dengue fever, tuberculosis, malaria, and diarrhoea. Thus, resource allocations have not kept pace with the rising rate of non-communicable diseases (e.g., stroke, diabetes,

heart disease, hypertension, and cancer) among older adult populations [7, 8]. Moreover, the Indonesian social insurance program, which is intended to cover all populations, is not designed for an ageing population [7, 9]. The lack of a sufficient healthcare system based on a community setting increases the vulnerability of the elderly to poor health and quality of life, mostly due to the threat of chronic illness from non-communicable diseases, and the lack of financial support for accessing quality health services, especially in rural areas [5, 10, 11].

Healthcare services for elderly populations in Indonesia have been arranged in both institutional and community services [12]. Residential aged care homes or social nursing homes managed by the government and private nonprofit institutions are institutional services that are mostly available in urban areas [13]. However, only a small number of elderly individuals reside in this residential aged care home setting because of cultural norms in Indonesian communities that support elder adults living with their families [13]. Private caregivers may provide care for older adults residing with their families; however, only upper-class families can afford this type of care [13, 14]. For other rural families, providing healthcare for older adults in their care is challenging due to limited resources [7, 15]. Community health centres that offer primary healthcare providers access to healthcare providers for rural populations, and about 10,134 community health centres spread all over Indonesia in 2019 [16]. Community-based initiatives for health programs for community-dwelling elderly, also known as integrated health posts for the elderly (*Posyandu lansia*), are also available and accessible health programs [13, 17]. According to a Ministry of Health report, there were about 80,353 *Posyandu lansia* in Indonesia in 2017 [18]. Poor health infrastructure is still the main constraint; however, rural communities have the adequate social capital to deal with restrictions, for example, through initiating community participation for providing *Posyandu lansia* by using their resources [15, 19]. With a higher proportion of elderly individuals (57%) in rural areas as opposed to urban areas [2, 15], it is important to explore the existing implementation of healthcare services for elderly populations in rural Indonesia to shed light on appropriate policy interventions.

An initial preliminary search had been conducted to identify similarities in the literature review topic through several sources such as PubMed, the Joanna Briggs Institute (JBI), the Database of Systematic Reviews and Implementation Reports, and the Cochrane Library, and

there were no literature review studies either published or underway that considered this from the perspective of implementing healthcare for community-dwelling elderly in rural areas. Therefore, this systematic review was aimed at identifying and synthesizing relevant evidence in Indonesia regarding the barriers and enablers of healthcare services for this population.

Methods

The review was conducted following the JBI methodology for qualitative evidence synthesis by using a meta-aggregative approach [20–22]. Meta-aggregation concentrates on the original syntheses from findings of individual studies to generate cross-study generalizations that lead to recommendations for practitioners and policymakers [22]. Even though the meta-aggregative approach reflects the processes of quantitative review, it is sensitive to the nature of qualitative research and its tradition [20]. Meta-aggregation aims to balance the complexity of the research material from original qualitative studies with the utility of outcomes for practical action [21]. The process of synthesis is provided as follows.

A search was conducted using the following electronic databases: PubMed (MEDLINE), Web of Science, ScienceDirect, Embase, PsycINFO, and CINAHL, by employing keywords and index terms. Keywords related to the topics of “health services,” “health care,” “elderly,” “older,” and “rural area,” with the geographical notion “Indonesia,” were applied to facilitate the search strategy of articles. Moreover, the review was limited to the published studies in English from 2010 to 2020.

Participants were elderly individuals with their families, health volunteers or cadres, community members, village administration officers, and healthcare providers (i.e., health staff, midwives, etc.). The review included studies that focused on healthcare services in Indonesia for rural-dwelling older adults related to health promotion, prevention, and clinical care. The phenomena of interest were participants’ perceptions of enablers and barriers based on their understanding, experience, beliefs, and aspirations in the context of healthcare for elderly populations. Qualitative studies with a clear description of methods and results were included. In addition, mixed-method research studies that comprised a qualitative component were also included. Unrelated studies that were not relevant to the subject matter of the review were excluded.

The procedure for article selection was conducted by two independent reviewers using the inclusion criteria of the study. Any disagreements between reviewers regarding each stage of the article selection process were decided through discussion and involved the third reviewer. This process was facilitated by applying the Joanna Briggs Institute System for the Unified Management, Assessment, and Review of Information (JBI SUMARI) software [23, 24]. Overall, the article selection process was reported and presented by employing a flow diagram of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses [25, 26].

All relevant articles included in the synthesis were critically appraised for methodological quality by applying the JBI critical appraisal tool [21, 22, 27]. This tool includes a 10-item standardized JBI critical appraisal checklist for qualitative studies and

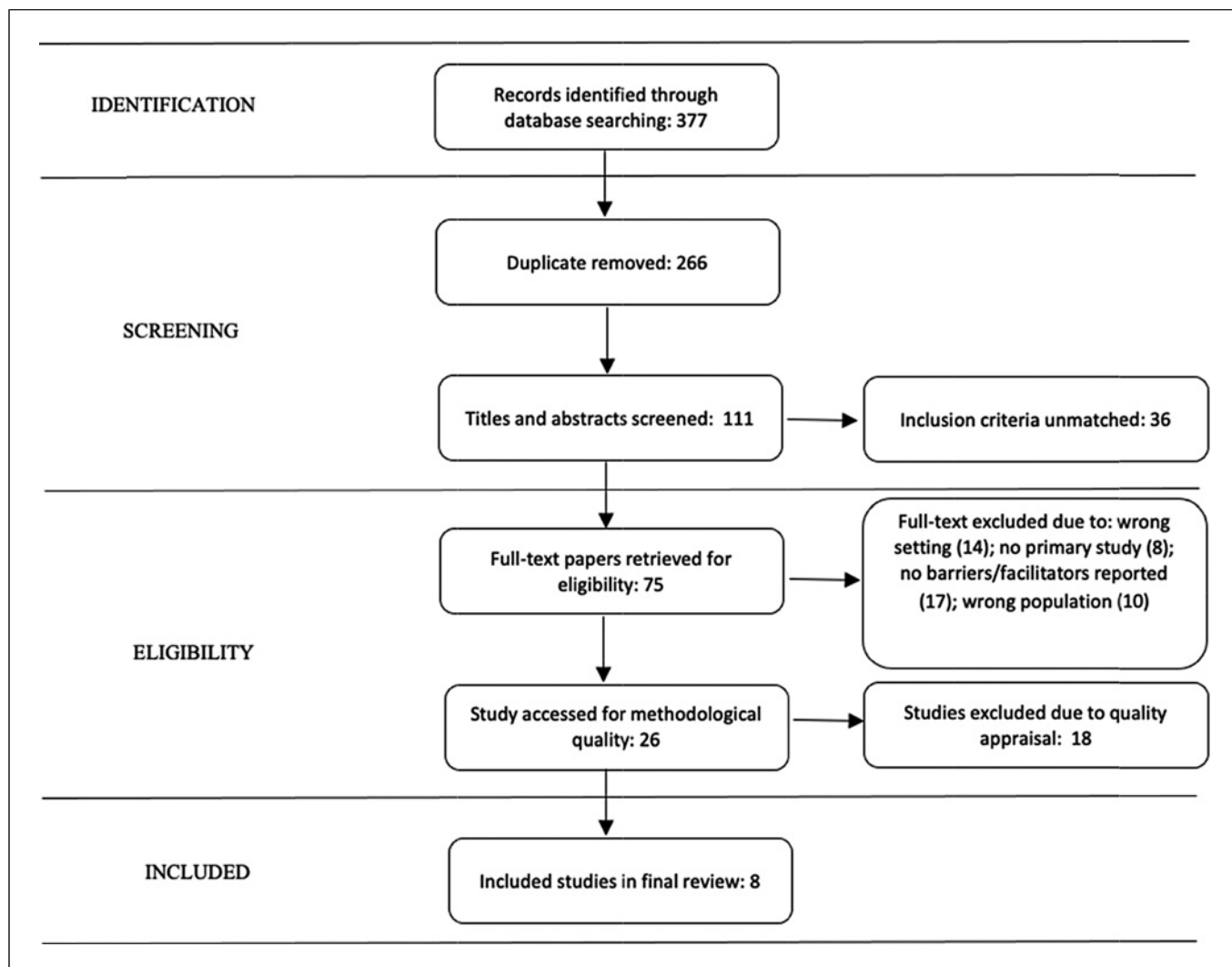


Fig. 1. Flow diagram of the review procedures.

critical appraisal criteria [20]. Then, the study findings of the articles were graded according to the ConQual approach for assessing credibility using three levels of evidence: unequivocal, credible, and unsupported. This also reflected the availability of reported themes in the articles through citations or interview excerpts [21, 28]. “Unequivocal” means that articles provide statements beyond a reasonable doubt. “Credible” means that statements are open to challenge and interpretation. “Unsupported” refers to a lack of directly reported evidence; thus, it should be read with caution.

A meta-aggregation approach was used to pool qualitative study findings, employing JBI SUMARI software [23, 24]. This approach synthesized study findings to create a set of statements reflecting the aggregation. The process was facilitated by categorizing study findings based on similarity in meaning. The resulting categories were then meta-aggregated to create a comprehensive set of synthesized findings. Then, these findings were used as a basis for evidence-based practice.

Results

The initial search identified 377 unique citations based on congruency with the inclusion criteria (Fig. 1). Following the removal of duplications, the search strategy resulted in a total of 111 articles. Based on a review of titles and abstracts, 36 articles were excluded because they did not meet the inclusion criteria. A full-text review resulted in the exclusion of 75 additional studies based on inclusion criteria. The remaining 26 studies were assessed for methodological quality, which resulted in the exclusion of 18 studies. The final sample for the meta-synthesis was 8 studies. A critical appraisal was conducted for the included article, which found that the quality of the articles was moderate, particularly due to the less

Table 1. Critical appraisal of included qualitative studies in the review

First author (year)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Pratono (2018)	U	U	U	U	U	N	N	Y	Y	Y
Rachmawati (2015)	U	Y	Y	Y	Y	N	N	Y	Y	Y
Rachmawati (2017)	U	Y	Y	Y	Y	N	N	U	U	U
Schröder-Butterfill (2014)	U	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ibad (2017)	U	U	U	U	U	Y	Y	Y	Y	Y
Sumini (2020)	U	Y	Y	Y	Y	Y	N	Y	Y	Y
Kadar (2014)	U	Y	Y	Y	Y	Y	Y	Y	Y	Y
van Eeuwick (2020)	U	U	U	U	U	N	Y	U	U	U
%	0.00	0.625	0.625	0.625	0.625	0.500	0.500	0.750	0.750	0.750

JBI critical appraisal criteria: (Q1) Is there congruency between the stated philosophical perspective and the research and methodology? (Q2) Is there congruity between the research methodology and the research question or objectives? (Q3) Is there congruity between the research methodology and the methods used to collect data? (Q4) Is there congruity between the research methodology and the representation and analysis of data? (Q5) Is there congruity between the research methodology and the interpretation of results? (Q6) Is there a statement locating the researcher culturally or theoretically? (Q7) Is the influence of the research on the research and vice versa addressed? (Q8) Are participants and their voices adequately represented? (Q9) Is the research ethical according to current criteria or, for recent studies, is there evidence of ethical approval by an appropriate body? (Q10) Do the conclusions drawn in the research report flow from the analysis or interpretation of the data? Y, yes; N, no; U, unclear.

Table 2. Characteristics of included studies

First author (year)	Study design	Methodology	Technique	Phenomena of interest	Participants	Data analysis
Pratono (2018)	Qualitative	Multiple case study	Interviews, focus groups	Perceptions of the quality of services	30 elderly, 15 midwives, 30 volunteers	Axial coding and open coding
Rachmawati (2015)	Qualitative	In-depth case studies	Interviews	Perception and experiences of the elderly program	11 elderly, 3 volunteers, 1 health staff	Thematic analysis
Rachmawati (2017)	Qualitative	In-depth case studies	Interviews	Perception of the elderly program	11 elderly, 3 volunteers	Thematic analysis
Schröder-Butterfill (2014)	Mixed methods	Ethnography, longitudinal studies	Interviews	Experiences of different ethnic groups on the elderly care	307 elderly	Thematic analysis
Ibad (2017)	Qualitative	Phenomenology	Interviews	Experiences of elderly care	Not specified	Thematic analysis
Sumini (2020)	Qualitative	In-depth case studies	Interviews	Perception of community home care service	Not specified	Not specified
Kadar (2014)	Mixed methods	Action research	Interviews, survey	Experience of delivering services	48 health staffs	Template analysis
van Eeuwick (2020)	Qualitative	In-depth case study	Interviews, survey, focus groups	Experiences of vulnerability in old age	75 elderly	Not specified

adequate methodological procedure (Table 1). The characteristics of the studies are described in Table 2.

Fifty-four different findings were obtained and presented in the first column of Figure 2–5. The column

offers specific information regarding the findings in the particular articles reported and also contains its level of evidence. Twelve categories were identified: (1) bringing both preventive and curative services closer to the elderly,

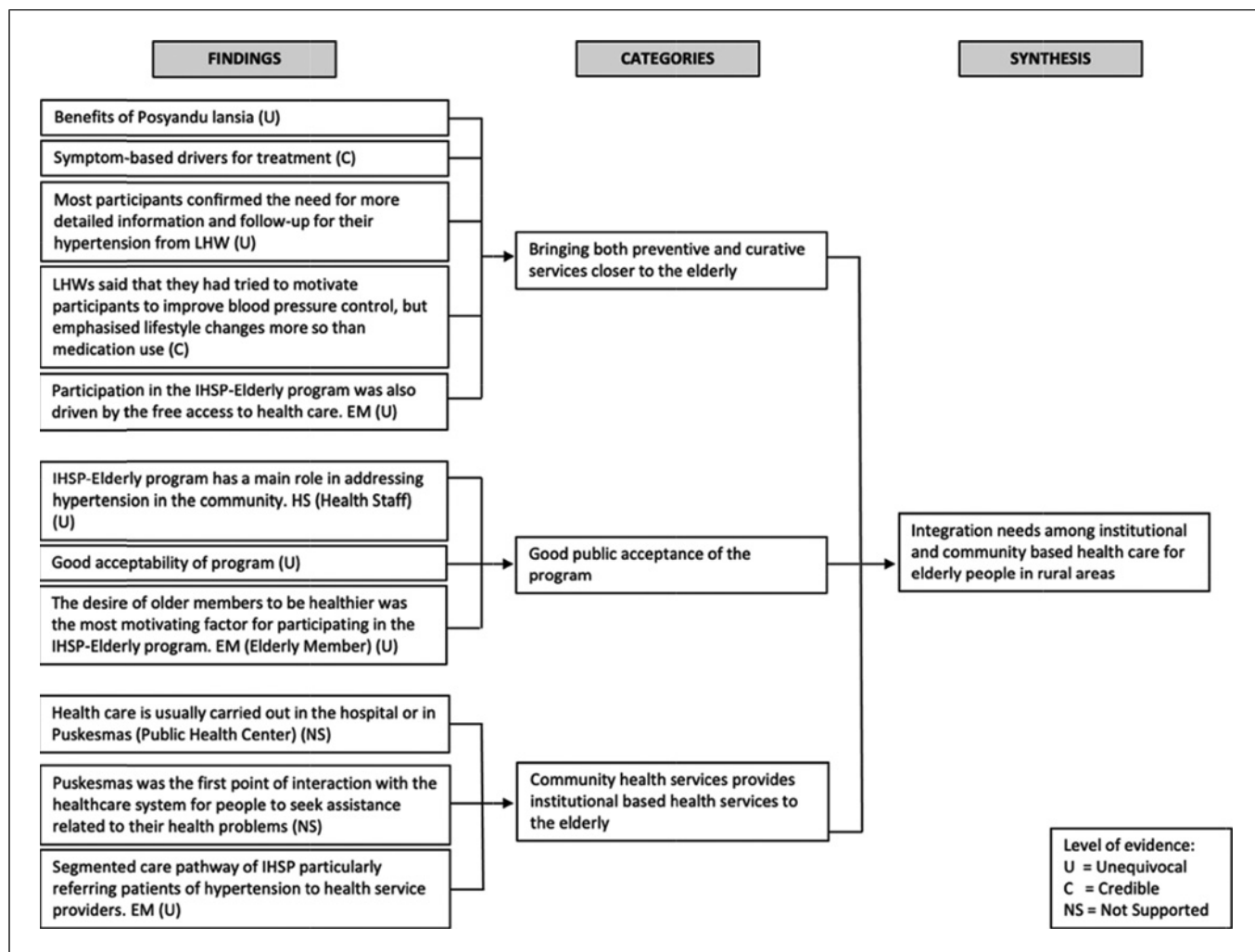


Fig. 2. Integration needs among institutional and community-based healthcare for elderly people in rural areas.

(2) good public acceptance of the program, (3) community health services providing institution-based health services to the elderly, (4) access barriers to health services, (5) lack of quality services, (6) inadequate health and human resources, (7) lack of human resource training to improve the capacity of care, (8) high dedication and commitment of volunteers, (9) community support for healthcare programs for elders, (10) family and matrilineage support for care, (11) negative community perceptions toward healthcare programs for elders, and (12) less family awareness regarding elderly care. These categories (shown in the second column of Fig. 2–5) were then analysed to generate four synthesized statements (column 3 of Fig. 2–5) described in the following sections.

Synthesis 1: Integration Needs among Institutional and Community-Based Healthcare for Elderly People in Rural Areas (Based on Categories 1, 2, and 3)

Three categories explain the perception of health services among the elderly regarding institutional and community-based programs related to integrating services: (1) bridging services closer to the elderly, (2) elderly acceptance of programs, and (3) characteristics of institutional-based services in community health centres. These three categories indicate a positive response to elderly healthcare at the community level, with the additional expectation of unsegregated service provision [29, 30]. “Being examined is exciting, you know, as an elderly people, what a great opportunity we have to get an examination for free. . .” [30]. “. . .Posyandu lansia merely

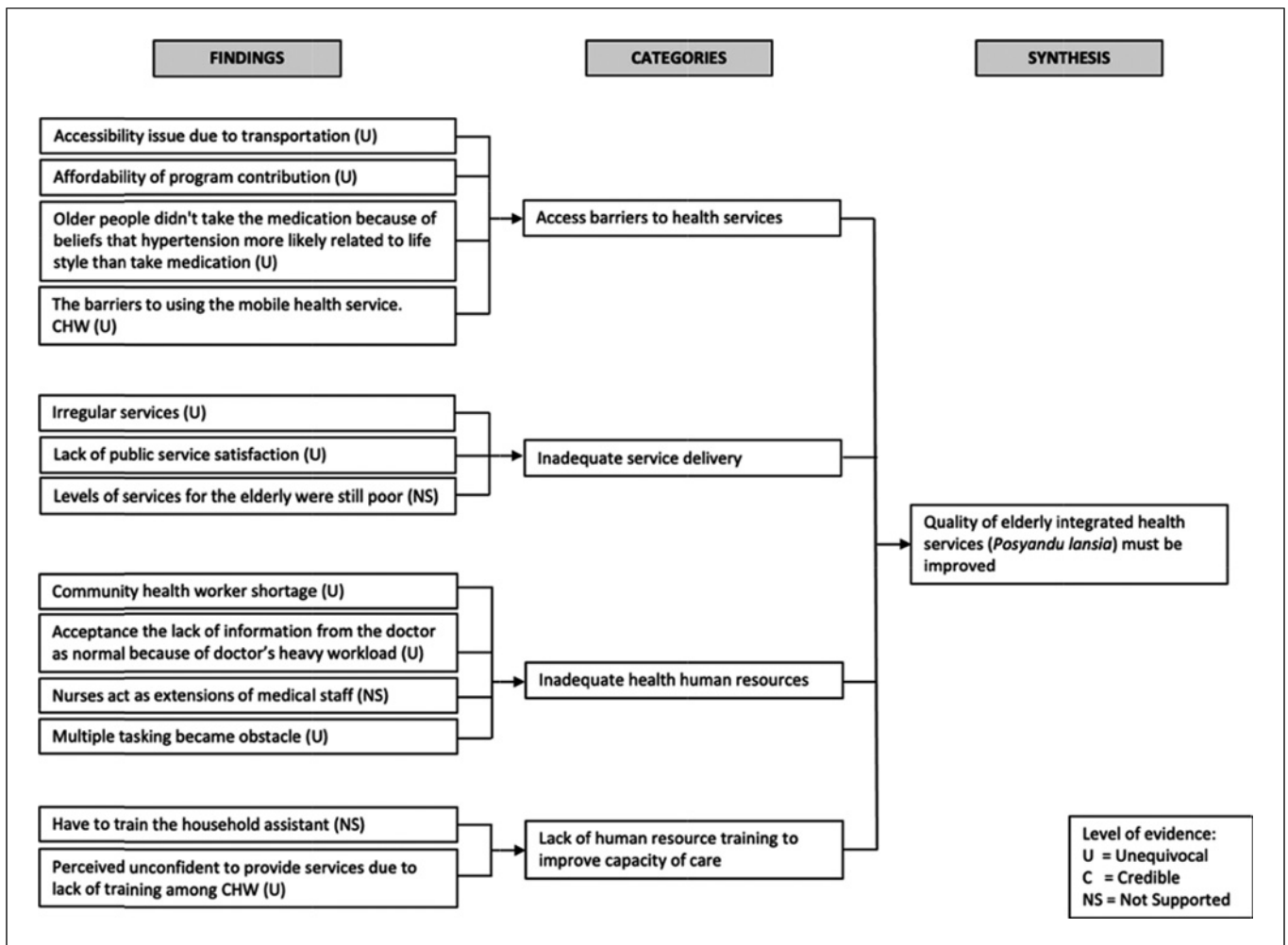


Fig. 3. Quality of elderly integrated health services must be improved.

provided basic health check-up, such as taking my blood pressure, asking some questions and weight to make sure whether they need to send me to the hospital for further tests. . .” [29]. This synthesis also identifies the benefits of promotive, preventive, and curative blended programs for community-dwelling elderly in rural settings [31]. “Belonging to the community provides benefits, such as health services once a month, religious activities, dancing, and recreation once a year. . .” [29]. Medical support for home care visits and interventionist care is supported by health staff at community health centres [31, 32].

Synthesis 2: The Quality of Elderly Integrated Health Services (Posyandu lansia) Must Be Improved (Based on Categories 4, 5, 6, and 7)

This synthesis reveals that the service quality of elderly integrated health services (*Posyandu lansia*) in rural areas

should be improved due to several inadequate aspects of stewardship, resources, and service provision. The fourth category addresses the issue of barriers to accessing *Posyandu lansia*. As expressed by elderly participants, “the integrated services are for the elderly, but only a few of them can access the services. Those who stay nearby will be able to join the activities. . .” [29]. “Elderly families here, sorry to say, can’t pay for the treatment and care because they’re still lacking in fulfilling the needs for daily food costs, especially to request home medical personnel. . .” [32].

The fifth category highlights several problems with service delivery. Irregular services and participant satisfaction have become challenging issues for long-term care services in *Posyandu lansia*. “It is not a routine program. If I am not mistaken, the last blood pressure checks other than the one today were done last month or 2 months ago.

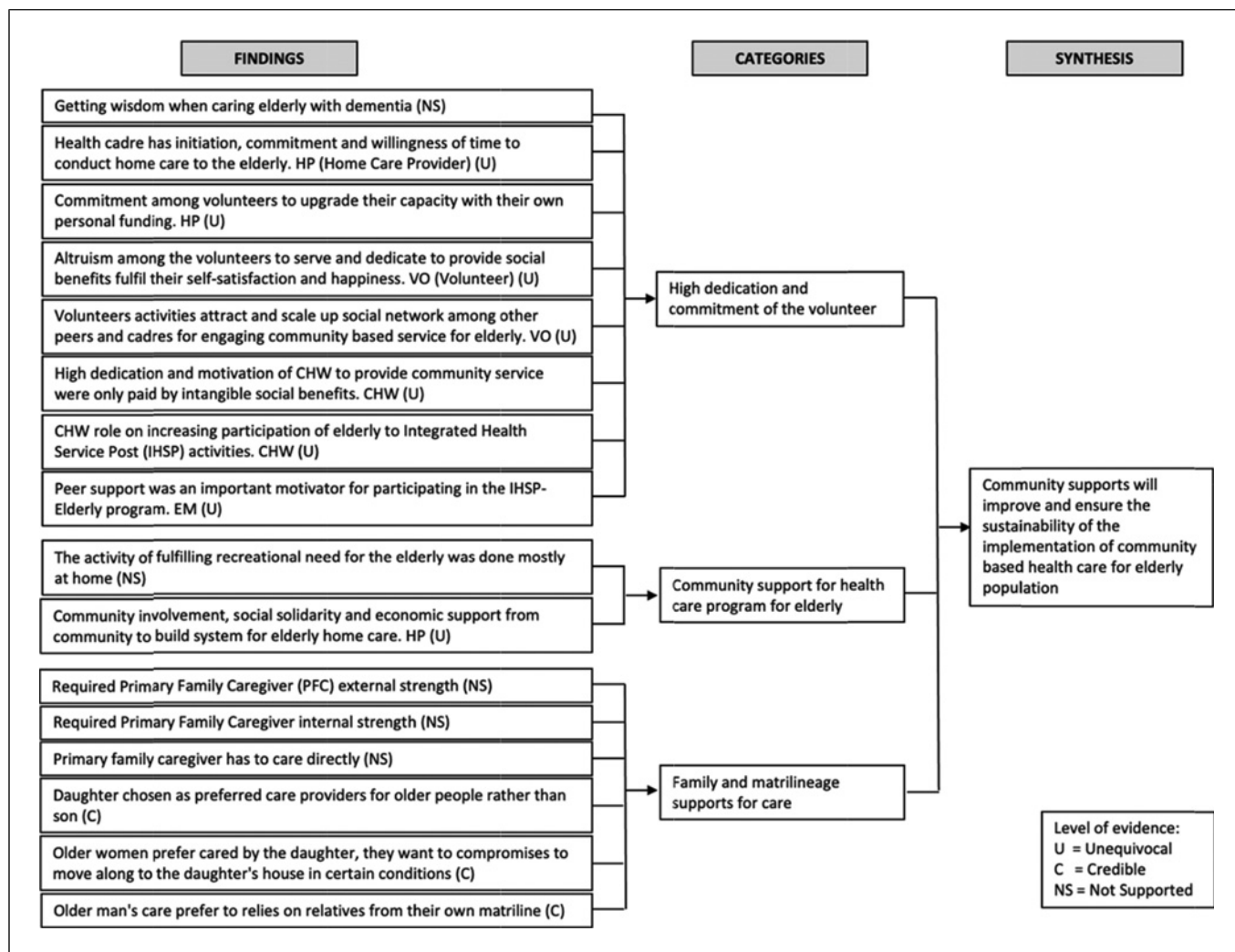


Fig. 4. Community supports will improve and ensure the sustainability of the implementation of community-based healthcare for elderly populations.

It would be lovely if they could make it weekly” [30]. “I experienced delayed services and long waiting times. Sometimes, there were no paramedics and only some volunteers. . .” [29].

The sixth category identifies challenges in health and human resources. Limited resources cause inadequate support in delivering services to the elderly in the community, as described in the following quotes, “. . . We find it difficult to get volunteers for *Posyandu lansia*. . .” [29]. “Sometimes we can’t do activities such as home visits because we lack health staff here in community health centres. . .” [31]. “No, health workers didn’t tell me anything, there was no advice. I need more suggestions actually” [33].

The seventh shows the lack of training to improve care skills. As one community health worker clarified, “She (the other community health worker) did not come for a while. . . During that time, I could not take over her task (to measure blood pressure) as I am not skilful yet” [30].

Synthesis 3: Community Support Will Improve and Ensure the Sustainability of the Implementation of Community-Based Healthcare for Elderly Populations (Based on Categories 8, 9, and 10)

Three categories address enabler aspects that support the implementation of healthcare for elderly populations in rural communities: (1) dedication and commitment of volunteers to provide services to community-dwelling

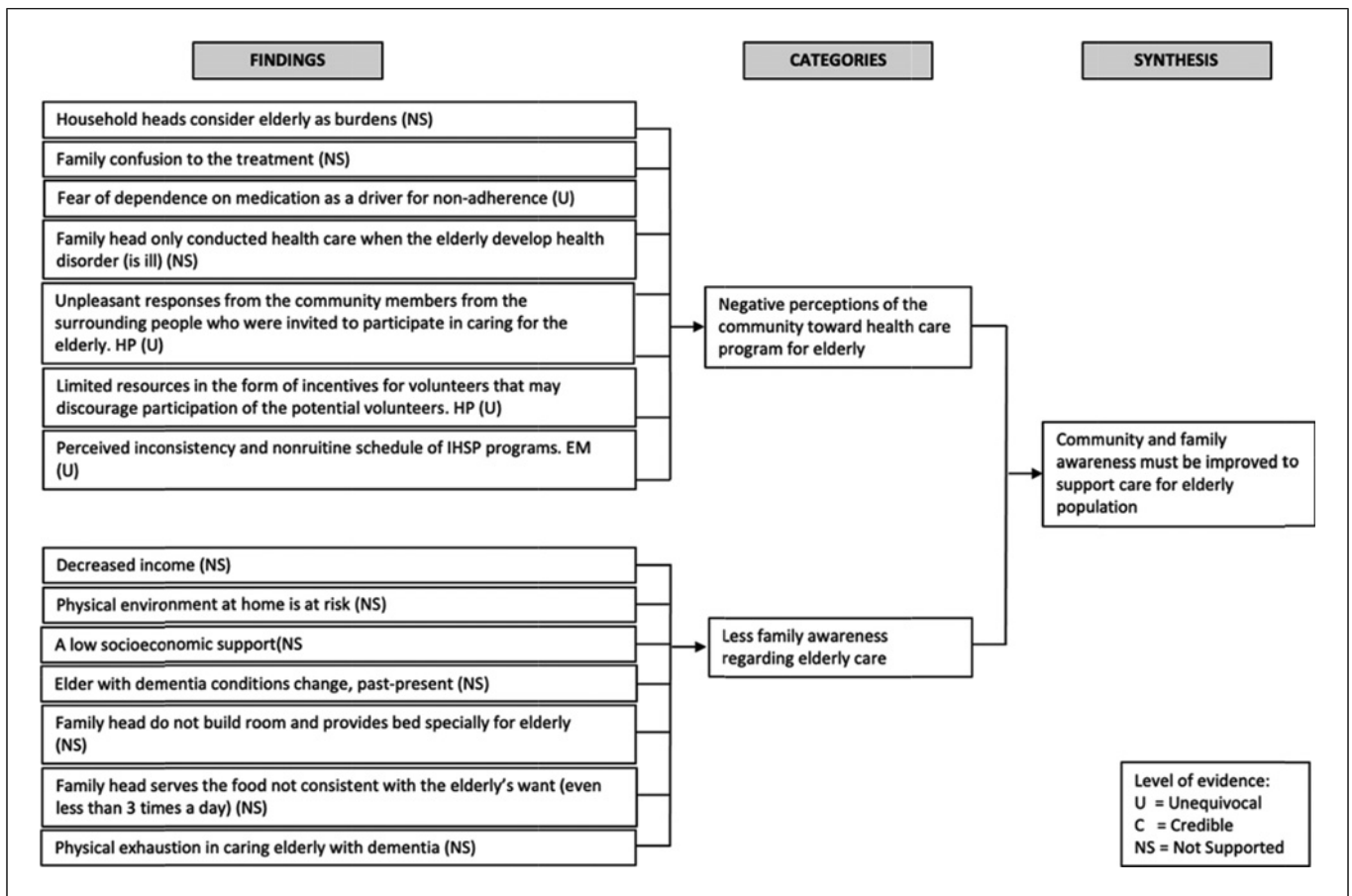


Fig. 5. Community and family awareness must be improved to support care for elderly populations.

elderly, (2) social capital support for healthcare programs for elders, and (3) family role for proving self-care for their elderly, as exemplified by the following participants' narrative: "I knew from the beginning that being a volunteer means that I'm not paid. . . It does not matter to me (not paid), it's a kind of worship" [32]. "Our village leader is very charismatic and powerful. We follow, especially when *Posyandu lansia* provided health information during the religious speech, and she encouraged all of us to participate in it. . ." [29]. "With a daughter. . . I need not feel like a stranger, nor awkward about asking her to do my laundry or cook my favourite food" [34]. "We have worked together with merchants and shops. We said, "If the elderly come to buy household needs like sugar and tea, please let them take it for free." They know that elderly customers should not ask for money. Even the travelling meatball vendors, if they are in front of a senior's home, they will give them a bowl of meatballs" [32].

Synthesis 4: Community and Family Awareness Must Be Improved to Support Care for Elderly Populations (Based on Categories 11 and 12)

This synthesis also highlights several constraints regarding the implementation of healthcare for the elderly in a rural area, such as the elderly being perceived as a family burden, a negative perception toward volunteers and their services, discouraging aspects of incentives, and less attention dedicated to caring for the elderly [29, 32, 35]. For example, some participants stated, "Elderly families here, sorry to say, can't pay for the treatment and care because they're still lacking in fulfilling the needs for daily food costs, especially to request home medical personnel. . ." [32]. "In my village, no one is interested in initiating the service. It involves much time and high-stress level. . ." [29]. "They (community health workers) should be smarter than us, so they can give us solutions when we have health problems" [33]. "Of course, there were those who refused. It was social work, and unpaid, so

if they didn't feel drawn to the issue, why would they do it? Taking care of the elderly... it was hard..." [32].

In addition, specific needs for the elderly regarding specific health conditions caused families to feel incompetent when attempting to provide adequate care [34–36]. These categories constitute an overall synthesis regarding community and family aspects that should be improved to serve the elderly properly.

Discussion and Conclusion

The review has shown that the implementation of healthcare for community-dwelling elderly in rural areas faces several challenges and obstacles related to its service provision. However, enablers and facilitating aspects were identified, which support the success of its practice, particularly those related to community and social capital support. The barriers identified from this synthesis regard the problems, lack, and difficulties of implementing health services for the elderly in rural Indonesia. Conversely, the enablers reflected commitment, dedication, and public solidarity to facilitate healthcare for the elderly at the community level [29–36]. The barrier and enabler issues related to the emerged synthesis findings from meta-aggregation are specifically discussed below.

Integration of Healthcare

Continuous and comprehensive health services from community-based care (*Posyandu lansia*) and community health centre to provide preventive and curative care were needed to enhance the performance of health services for elderly people in rural areas. *Posyandu lansia* already performs mostly promotive and preventive care that receives positive public acceptance. On the other hand, a community health centre, which has at least one location per sub-district, provides more professional healthcare, such as general practitioners, nurses, and other health staff, and offers extensive medical facilities for curative care, which older persons can access more easily. The arrangement of these two services was different and carried out separately. *Posyandu lansia* relied on community-owned resources and was run by volunteers. Moreover, it was supported by neighbourhood associations and village administrations. The management of *Posyandu lansia* was simple, and the services offered depended on the liveliness, creativity, and initiatives of volunteers or health cadres, as well as local community support and resources [29, 32]. Basic health check-ups like blood pressure checks, weight and height measurements, physical exercise, and health promotion

activities became routine services provided by *Posyandu lansia* and volunteers. Elderly people who require medical attention are referred to the community health centre for further professional health treatment. The community health centre has a role as a gatekeeper for all healthcare services provided by general practitioners, dentists, and nurses. If patients need specialist treatment, they are referred to secondary facilities such as district hospitals, which have the capacity for medical speciality services. However, in terms of services, the community health centre is the nearest healthcare facility for elderly populations and is also the easiest to reach from their residences by using private vehicles or public transportation [37–39].

The integration of health services to provide elderly care, from *Posyandu lansia* to community health centre, must be improved due to differences in program management. The current integration is still in the form of a continuum of services from community-based to institutional care, where *Posyandu Lansia* conducts early screening and monitoring of diseases at the community level and the community health centre receives referrals of the elderly who need further treatments from *Posyandu Lansia* [29]. However, lack of coordination, ineffective communication systems, resource gaps, and geographical barriers became major issues of service integration [30, 40]. Regional disparities regarding *Posyandu lansia* performance, such as quality, availability, and capacity of services, are also major challenges for health service improvement for community-dwelling elderly in rural areas.

Strengthening social capital by enhancing community capacity and volunteer capabilities with local government and sub-district administration support may be the key to the program's success [33]. The community health centre has an important role in providing guidance, supervision, and capacity building for *Posyandu lansia* through innovative models. The integrated, community-based healthcare approach to primary care that entails the collaboration of professional health staff and volunteers, or health cadres, may be possible. Home health assessment visits, mobile services, developing m-health and telemedicine, and integrated health hubs are examples of innovative models that have been implemented in both developing and developed countries to overcome disparities and fragmentation in providing healthcare for rural communities [41–44].

Quality of Services

The quality of community-based healthcare services for the elderly in rural areas must be improved due to the

issues of access difficulties, irregular services, poorly maintained equipment, and lack of human resource competence. These occur as a result of a substantial shortfall in stewardship, resources, and service provision. Geographic isolation is a major issue among elderly populations who live in rural areas [45–47]. Community outreach, such as *Posyandu lansia*, with its basic health service on one specific day of a month, might be the nearest healthcare that a rural elderly individual could have as part of their long-term care. However, due to their physical limitations, some elderly individuals also experience barriers to attending such services. In some cases, *Posyandu lansia* services are sometimes carried out irregularly, thus increasing the perception of the services being of low quality to the elderly [29]. Moreover, limited resources that rely on community self-reliance have caused medical devices to not be properly maintained (e.g., problems regarding equipment calibration). Human resource competencies are another challenge due to the lack of capacity building [30]. All of this makes *Posyandu lansia* the main outreach health service for the elderly in rural areas, and it needs significant improvement. The community health centre has a strategic role in empowering and supporting the *Posyandu lansia* program by involving other stakeholders such as village offices, NGOs, and people who are concerned about healthcare for elderly populations in rural areas.

Government policies about village fiscal transfers note that village governments have the authority to manage and provide their public services. This is an opportunity for *Posyandu lansia* to be developed with sufficient resources [48, 49]. Ever since the decentralization policy was implemented in Indonesia, the development of health services has undergone significant changes (e.g., the increasing number of *Posyandu lansia* per 1,000 citizens) [50]. However, the progress varies due to different management capabilities and program priorities in various villages. Human resources are the main challenge to providing public services at the village level. In the context of health services, health human resource shortages, insufficient capacity training, and limited infrastructure produce low-quality services [31, 51]. Budget allocation from village funds and guidance from the community health centre to *Posyandu lansia* are alternative solutions to overcome problems related to the low quality of services.

Community Supports

Social capital is the key to the successful implementation of health services for community-dwelling elderly in rural areas. Local networks, volunteer altruism,

and a sense of kinship among people are substantial factors that influence health program sustainability in communities [15, 35]. Community participation as a social concern for the elderly in rural areas has strengthened the implementation and sustainability of the program. This review has explored the existing forms of community support that underpin health services for the elderly in rural communities, such as volunteering to manage *Posyandu lansia*, self-funded training for upgrading skills, peer support for maintaining regeneration and participation, and funding. The supports have several benefits due to the nature of community involvement which relies on local resources to implement the program, fosters bottom-up initiatives to better identify problems faced by the elderly which encourages real action to overcome them, empowers the community to get involved, and encourages donations, grants, and volunteers' contributions for sustaining the program. This finding is consistent with previously published works that found that public participation and engagement in community-based healthcare optimized health program intervention and yielded positive public health impacts [52–54]. Moreover, social capital and community involvement are essential to enhancing community-based healthcare governance, in which organizational partnerships and trust become the foundation for its implementation and ensuring program sustainability.

In rural communities, the role of the family is also a determining factor for elderly healthcare. Elderly individuals rely on matrilineal kin to obtain care from health programs [34]. *Posyandu lansia* services are sometimes difficult to access for the elderly, particularly those with poor health status. Thus, families should take them to *Posyandu lansia*. If elderly individuals require more intensive treatment, then the family will take them to the community health centre or hospital [55]. For families who have elderly relatives in poor health, which influences their ability to perform daily living activities (e.g., dementia), the family burden to provide special personal care will be increased [36]. Caring for the elderly with dementia requires careful and intensive treatment and monitoring, which also causes financial, social, physical, and psychological consequences [56, 57]. The physical and mental health of caregivers can be adversely affected; however, they often feel like they must take care of their parents or relatives in the hope that their health will improve [36]. Insufficient healthcare infrastructures in rural areas for dealing with the elderly under specific circumstances leave families as the primary option [55, 58, 59].

Community and Family Awareness

Barriers to implementing health services for the elderly also come from within families and communities themselves. Challenges faced include a lack of family and community awareness of the health of the elderly such as the perception that the elderly are an economic burden to the family, unpleasant responses from the community members to cadre activities, and lack of financial rewards. This condition occurs because of the inadequate social protection policies for the elderly and insufficient managerial support from the community health centre to *Posyandu lansia*. The presence of elderly individuals in the family can be perceived as a financial and economic burden for the head of the household, as the elderly are no longer economically productive and require medical treatments [32, 55]. In developing countries, including Indonesia, where social protection (e.g., income benefits) for the elderly is limited and segmented, the burden of their presence will become an intergenerational family responsibility [34, 60]. Policies focussing on care provisions for the elderly under a social security system may be a substantial solution for dealing with the welfare of older people in Indonesia [61–63].

On the community level, the implementation of health services for community-dwelling elderly in rural areas sometimes receives a pessimistic response from community members, particularly to home care volunteers [32]. Unpleasant feedback from community members toward the kindness and sincerity of health cadres causes psychosocial burdens for the cadres themselves; however, this does not discourage the enthusiasm of cadres to serve communities. Previously published works found that community health volunteers experienced burdens related to their social awareness activities, but these activities also had a positive impact on life satisfaction. Still, they negatively affected happiness [64, 65]. In many cases, unfamiliarity with health volunteers caused people to have a lack of interest in cooperating with community-based health programs [66]. Therefore, managerial support from healthcare institutions and other stakeholders requires additional attention because community health volunteers have significantly contributed to primary healthcare services [65, 67].

Further, health cadres encounter barriers concerning incentives [32]. Payment models for health cadres have become a global discourse with a variety of approaches. Community-based health services for the elderly are not business-oriented without any commercial purpose. “Altruistic capital” may have an important role in

health cadres’ motivation to serve communities [68, 69]. Although evidence shows that the remuneration of community health volunteers in several developing countries is potentially effective in improving work performance and motivation, the design depends on the context in which it operates, the availability of funding, and government commitment [70]. Maximizing community appreciation and grassroots support through donations and grants for health program implementation may also be a realistic way to enhance motivation and program success because the issue of payment requires more complex bureaucracy and systems [32, 70, 71].

There are several limitations to this study. Firstly, this synthesis focused on published evidence with rigorous search strategies using common database platforms for literature reviews to find papers that covered the implementation of community-based health services for the elderly in rural Indonesia. It is possible to leave out any relevant studies that could not be analysed from this synthesis. In addition, the review proposed to evaluate the interventions carried out in all regions of Indonesia; however, most studies were conducted in Java, where the vast majority of citizens live, while the other two studies were from Sumatera and Sulawesi. Moreover, because Indonesia has multiple ethnicities with a variety of cultures and traditions, as well as a disparity in healthcare provision among regions, this synthesis may not be able to identify this diversity. However, the study has contributed perspectives on the health service praxis for elderly people in the Indonesian healthcare context.

Secondly, the review covers not only papers with quotes from original studies but also those without any supported quotes. The decision to include all of these studies was made because of the assumption that publication requirements limit the number of words for manuscript submission. Thus, authors tend not to present quotes in their study results. However, it was emphasized that all included papers for this review were based on existing evidence that supports the main purpose of the study. This effort had been conducted by identifying the appropriateness and alignment of study objectives, methodological quality (e.g., the accuracy of informants, data collection, and data analysis), and qualitative findings from the included papers. To increase the degree of trustworthiness in selecting the papers and reducing the risk of errors and bias in the review process, a comprehensive check from different reviewers was conducted by using a standard critical review [23, 24].

Thirdly, the studies included in the review were not merely focused on qualitative evaluations of interventions related to community-based programs for the elderly. The review also covered studies that explored participant perspectives, practices, and experiences toward healthcare from both sides of the elderly and stakeholder views. This approach enriched the angle of the situation of the healthcare system for rural elderly populations at the community level. Moreover, in terms of research design, different qualitative methods, such as phenomenology, ethnography, action research, and other study approaches that were included in the review may have provided a variety of perspectives and insights that require strict categorizing processes to generate robust synthesized findings or themes. This effort has the advantage of producing a more comprehensive interpretation of the findings.

In conclusion, the review has been able to highlight important findings about enablers and barriers to health services for community-dwelling elderly in rural Indonesia. Four main findings – the integration of healthcare, quality of service, community support, and community and family awareness – were identified to influence the implementation of healthcare for the elderly. These concepts provide substantial insights that can be used to address the key challenges of existing programs and improve the system by considering specific features of enablers and barriers. Evidence suggests that collaboration between communities, healthcare institutions, families, and government authorities can support program success and maintain service sustainability, which will result in adequate healthcare for elderly populations and improved health overall, as these services are intended to provide.

References

- 1 Badan pusat statistik Indonesia. Indonesia population projection 2010–2035. Jakarta: Badan Pusat Statistik Indonesia; 2013.
- 2 Adioetomo SM, Mujahid G. Indonesia on the threshold of population ageing. New York (NY): United Nations Population Fund (UNFPA); 2014.
- 3 Barber SL, Rosenberg M. Aging and universal health coverage: implications for the Asia-Pacific region. *Health Syst Reform*. 2017;3(3): 154–8.
- 4 Mahendradata Y, Trisnantoro L, Listyadewi S, Soewondo P, Marthias T, Harimurti P, et al. The Republic of Indonesia health system review: health systems in transition. New Delhi: South east asia regional office (SEARO). World Health Organization; 2017.
- 5 Agustina R, Dartanto T, Sitompul R, Susiloretzni KA, Suparmi, Achadi EL, et al. Universal health coverage in Indonesia: concept, progress, and challenges. *Lancet*. 2019; 393(10166):75–102.
- 6 Anindya K, Lee JT, McPake B, Wilopo SA, Millett C, Carvalho N. Impact of Indonesia's national health insurance scheme on inequality in access to maternal health services: a propensity score matched analysis. *J Glob Health*. 2020;10(1):010429.
- 7 Ng N, Hakimi M, Byass P, Wilopo S, Wall S. Health and quality of life among older rural people in Purworejo District, Indonesia. *Glob Health Action*. 2010;3(1):2125–87.
- 8 GBD 2019 Diseases and Injuries Collaborators; Machado DB, Cislighi B, Salman OM, Karanikolos M, McKee M, et al. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet*. 2020;396(10258): 1204–22.
- 9 Heller PS. Is Asia prepared for an aging population? In: Clark RL, Ogawa N, Mason A, editors. Population aging, intergenerational transfers and the macroeconomy. Cheltenham (UK): Edward Elgar; 2007.
- 10 Arifin EN, Hogervorst E. Elderly's self-rated health status and functional capacity at the district level in Indonesia. *J Popul Ageing*. 2015;8(3):147–72.

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Statement of Ethics

An ethics statement is not applicable because this study is based exclusively on published literature.

Conflict of Interest Statement

The authors declare that they have no competing interests.

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Author Contributions

The conception or design of the work: B.A., S.M., and D.A. Data acquisition: B.A., A.D.I., and D.A.W. Analysis and interpretation of data: B.A. and D.A. Drafting the paper: B.A., S.M., and A.D.I. Critical revision of the intellectual content: D.A. and D.A.W. Study supervision: D.A.W.

Data Availability Statement

All data generated or analysed during this study are included in this published article. Further enquiries can be directed to the corresponding author.

- 11 Kim Y, Sikoki B, Strauss J, Witoelar F. Intergenerational correlations of health among older adults: empirical evidence from Indonesia. *J Econ Ageing*. 2015;6:44–56.
- 12 Wijayanti, Setioko B, Pandelaki EE. Toward housing for the elderly in Indonesia. *Int J Humanit Soc Sci*. 2015;5(6):53–60.
- 13 Kadar KS, Francis K, Sellick K. Ageing in Indonesia: health status and challenges for the future. *Ageing Int*. 2013;38(4):261–70.
- 14 Rekawati E, Sahar J, Widyatuti, Abas I, Chaidir. The experience of older people living in nursing home (Panti Wredha) in DKI Jakarta, Indonesia. *Enferm Clin*. 2018;28(S1): 347–52.
- 15 Utomo A, Mcdonald P, Utomo I, Cahyadi N, Sparrow R. Social engagement and the elderly in rural Indonesia. *Soc Sci Med*. 2019;229: 22–31.
- 16 Kementerian Kesehatan RI. Profil kesehatan Indonesia tahun 2019. Jakarta: Kementerian Kesehatan Republik Indonesia; 2020.
- 17 Yamada M, Hapsari ED, Matsuo H. Behaviors toward noncommunicable diseases prevention and their relationship with physical health status among community-dwelling, middleaged and older women in Indonesia. *Int J Environ Res Public Health*. 2020;17(7): 2332.
- 18 Indonesia KKR. Jumlah lansia sehat harus meningkat. Jakarta: Kominfo; 2018. [cited 2023 Feb 4]. Available from: https://www.kominfo.go.id/content/detail/13193/jumlah-lansia-sehat-harus-meningkat/0/artikel_gpr.
- 19 Cao J, Rammohan A. Social capital and healthy ageing in Indonesia. *BMC Public Health*. 2016;16:631.
- 20 Lockwood C, Munn Z, Porritt K. Qualitative research synthesis: methodological guidance for systematic reviewers utilizing meta-aggregation. *Int J Evid Based Healthc*. 2015;13(3):179–87.
- 21 Hannes K, Petry K, Heyvaert M. The meta-aggregative approach to qualitative evidence synthesis: a worked example on experiences of pupils with special educational needs in inclusive education. *Int J Res Method Educ*. 2018;41(3):291–305.
- 22 Hannes K, Lockwood C. Pragmatism as the philosophical foundation for the Joanna Briggs meta-aggregative approach to qualitative evidence synthesis. *J Adv Nurs*. 2011; 67(7):1632–42.
- 23 Piper C. System for the unified management, assessment, and review of information (SUMARI). *JMLA*. 2019;107(4):634–6.
- 24 Munn Z. Software to support the systematic review process: the Joanna Briggs Institute system for the unified management, assessment and review of information (JBI-SUMARI). *JBI Database System Rev Implement Rep*. 2016;14(10):1.
- 25 Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, et al. Preferred reporting items for systematic review and meta-analysis protocols (Prisma-P) 2015: elaboration and explanation. *BMJ*. 2015;350: g7647.
- 26 Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidis JPA, et al. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *BMJ*. 2009;339:b2700.
- 27 JBI. The Joanna Briggs Institute critical appraisal tools for use in JBI systematic reviews. Adelaide, Australia: Joanna Briggs Institute; 2017.
- 28 Munn Z, Porritt K, Lockwood C, Aromataris E, Pearson A. Establishing confidence in the output of qualitative research synthesis: the ConQual approach. *BMC Med Res Methodol*. 2014;14:108.
- 29 Pratono AH, Maharani A. Long-term care in Indonesia: the role of integrated service post for elderly. *J Aging Health*. 2018;30(10): 1556–73.
- 30 Rahmawati R, Bajorek B. A community health worker-based program for elderly people with hypertension in Indonesia: a qualitative study, 2013. *Prev Chronic Dis*. 2015;12:E175.
- 31 Kadar KS, Mckenna L, Francis K. Scoping the context of programs and services for maintaining wellness of older people in rural areas of Indonesia. *Int Nurs Rev*. 2014;61(3):310–7.
- 32 Sumini, Sukamdi, Pangaribowo EH, Pangaribowo EH, Keban YT, Darwin M. Elderly care: a study on community care services in sleman, DIY, Indonesia. *J Aging Res*. 2020; 2020:3983290.
- 33 Rahmawati R, Bajorek B. Perspectives on antihypertensive medication: a qualitative study in a rural Yogyakarta province in Indonesia. *Drugs Ther Perspect*. 2016;32(2): 76–83.
- 34 Schröder-Butterfill E, Fithry TS. Care dependence in old age: preferences, practices and implications in two Indonesian communities. *Ageing Soc*. 2014;34(3):361–87.
- 35 van Eeuwijk P. Precarity, assemblages, and Indonesian elder care. *Med Anthropol*. 2020; 39(1):41–54.
- 36 Ibad MR, Ahsan A, Lestari R. Caring experience of primary family caregiver in elderly with dementia at Indonesian rural area. *Adv Med Sci*. 2017;2:316–23.
- 37 Agustin D, Laksmono BS. Satisfaction of elderly patients participating in health insurance and seeking health services at the Sukmajaya Community Health Center in Depok: expectations and realities: pilot study. *J Int Dent Med Res*. 2019;12(1):278–85.
- 38 Oktarina S, Mindayani S, Harir W. The utilization of health services by the elderly in lubuk buaya health center in padang city. *Adv Heal Sci Res*. 2020;22:420–4.
- 39 Rolindrawan D. The impact of BPJS health implementation for the poor and near poor on the use of health facility. *Procedia Soc Behav Sci*. 2015;211:550–9.
- 40 Threapleton DE, Chung RY, Wong SYS, Wong E, Chau P, Woo J, et al. Integrated care for older populations and its implementation facilitators and barriers: a rapid scoping review. *Int J Qual Health Care*. 2017;29(3): 327–34.
- 41 Lafortune C, Huson K, Santi S, Stolee P. Community-based primary health care for older adults: a qualitative study of the perceptions of clients, caregivers and health care providers. *BMC Geriatr*. 2015;15:57.
- 42 Tony LB. Community-based approach to primary health care integration. *MOJ Public Heal*. 2016;4(4):123–5.
- 43 Malachowski C, Skopyk S, Toth K, MacEachen E. The Integrated Health Hub (IHH) Model: the evolution of a community based primary care and mental health centre. *Community Ment Health J*. 2019;55(4): 578–88.
- 44 Fairall L, Bateman E, Cornick R, Faris G, Timmerman V, Folb N, et al. Innovating to improve primary care in less developed countries: towards a global model. *BMJ Innov*. 2015;1(4):196–203.
- 45 Rosenthal TC, Fox C. Access to health care for the rural elderly. *JAMA*. 2000;284(16): 2034–6.
- 46 Nemet GF, Bailey AJ. Distance and health care utilization among the rural elderly. *Soc Sci Med*. 2000;50(9):197–208.
- 47 Wienda Kartika L. Facilitators and barriers to health workforce retention in rural and remote setting of Indonesia: a literature review. *KnE Life Sci*. 2019;4(10):140.
- 48 Anshari K. Indonesia's village fiscal transfers (dana desa) policy: the effect on local authority and resident participation. *J Stud Pemerintah*. 2018;9(4):619–53.
- 49 Chalil TM. The efficiency of village government spending in Indonesia: a meta-frontier analysis. *J Indone Econ Bus*. 2020;35(1):1–16.
- 50 Maharani A, Tampubolon G. Has decentralisation affected child immunisation status in Indonesia? *Glob Health Action*. 2014;7: 24913.
- 51 Soenarto Putri TW, Abdallah Kafia K, Komara Yuda T. Community-care approach for social work practice: learning from community-based healthcare for elderly in yogyakarta. *J Ilmu Sos dan Ilmu Polit*. 2020; 23(3):198–209.
- 52 Haldane V, Chuah FLH, Srivastava A, Singh SR, Koh GCH, Seng CK, et al. Community participation in health services development, implementation, and evaluation: a systematic review of empowerment, health, community, and process outcomes. *PLoS One*. 2019;14(5): e0216112.
- 53 Bai Y, Bian F, Zhang L, Cao Y. The impact of social support on the health of the rural elderly in China. *Int J Environ Res Public Health*. 2020;17(6):2004.

- 54 Kenny A, Farmer J, Dickson-Swift V, Hyett N. Community participation for rural health: a review of challenges. *Health Expect*. 2015; 18(6):1906–17.
- 55 Demartoto A. The role of family in bringing the elderly's well-being into reality in rural areas of Central Java, Indonesia. *Asian Soc Sci*. 2013;9(5):191–202.
- 56 Meichsner F, Köhler S, Wilz G. Moving through predeath grief: psychological support for family caregivers of people with dementia. *Dementia*. 2019;18(7–8):2474–93.
- 57 De Vugt ME, Verhey FRJ. The impact of early dementia diagnosis and intervention on informal caregivers. *Prog Neurobiol*. 2013;110: 54–62.
- 58 Schulz R, Eden J. Family caregiving roles and impacts. In: Schulz R, Eden J, editors. Families caring for an aging America. Washington (DC): National Academies Press; 2016.
- 59 Grossman BR, Webb CE. Family support in late life: a review of the literature on aging, disability, and family caregiving. *J Fam Soc Work*. 2016;19(4):348–95.
- 60 International Labour Office. Social protection for older persons: key policy trends and statistics. Geneva: Social Protection Department. International Labour Office; 2014.
- 61 Ramesh M. Social protection in Indonesia and the Philippines: work in progress. *Southeast Asian Econ*. 2014;31(1):40–56.
- 62 Suryahadi A, Febriany V, Yumna A. Expanding social security in Indonesia: the current processes and challenges. In: Yi I, editor. Towards universal health care in emerging economies: social policy in a development context. London: Palgrave Macmillan; 2017.
- 63 Mboi N. Indonesia: on the way to universal health care. *Health Syst Reform*. 2015; 1(2):91–7.
- 64 Gil-Lacruz M, Saz-Gil MI, Gil-Lacruz AI. Benefits of older volunteering on wellbeing: an international comparison. *Front Psychol*. 2019;10:2647.
- 65 Gau YM, Buettner P, Usher K, Stewart L. Burden experienced by community health volunteers in Taiwan: a survey. *BMC Public Health*. 2013;13:491.
- 66 Vizeshfah F, Momennasab M, Yekhtalab S, Iman MT. Challenges faced by health volunteers in comprehensive health centers in the southwest of Iran: a qualitative content analysis. *J Med Life*. 2018;11(1):62–8.
- 67 Bauer I. More harm than good? The questionable ethics of medical volunteering and international student placements. *Trop Dis Travel Med Vaccines*. 2017;3:5.
- 68 Kahana E, Bhatta T, Lovegreen LD, Kahana B, Midlarsky E. Altruism, helping, and volunteering: pathways to well-being in late life. *J Aging Health*. 2013;25(1):159–87.
- 69 Mohajer N, Singh D. Factors enabling community health workers and volunteers to overcome socio-cultural barriers to behaviour change: meta-synthesis using the concept of social capital. *Hum Resour Health*. 2018;16(1):63.
- 70 Singh D, Negin J, Otim M, Orach CG, Cumming R. The effect of payment and incentives on motivation and focus of community health workers: five case studies from low- and middle-income countries. *Hum Resour Health*. 2015;13:58.
- 71 Hoppe T, Graf A, Warbroek B, Lammers I, Lepping I. Local governments supporting local energy initiatives: lessons from the best practices of Saerbeck (Germany) and Lochem (The Netherlands). *Sustainability*. 2015;7(2): 1900–31.