

Socio-Legal Implementation of Elderly Protection through Culturally Responsive Hybrid Services: The LANTERA Model in Bandung Regency, Indonesia

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ABSTRACT

This study examines the socio-legal implementation of elderly protection through the LANTERA (*Layanan Lansia Tangguh dan Sejahtera-Resilient and Prosperous Elderly Services*) model in Bandung Regency, focusing on how culturally grounded communication and hybrid service arrangements translate formal legal rights into accessible, participatory, and dignified service experiences. The study addresses the ongoing gap between legal guarantees for older persons and their practical realization in local public service settings. A socio-legal convergent parallel mixed-methods design combined normative analysis of national and regional legal frameworks with empirical data from 113 older respondents in three villages in Kecamatan Paseh, Bandung Regency. Data were collected through questionnaires, in-depth interviews, focus group discussions, field observations, and documentation review, and were analyzed using descriptive statistics, thematic and content analysis, and a socio-legal compliance matrix. The findings show that accessibility, participation, dignity, and welfare support were partially operationalized and most evident in community-based assistance, culturally familiar verbal and nonverbal communication, and respectful interpersonal interaction. Sundanese language, storytelling, gestures, attentive listening, and patient interaction were associated with more understandable, familiar, and respectful service encounters. However, complaint handling, service continuity, formalization of assisted access, and independent digital access remained less developed. These weaknesses reflected different implementation, institutional, service design, developmental, and possibly regulatory-specificity gaps rather than a single regulatory deficiency. The findings imply that policy responses should be differentiated: service procedures and complaint mechanisms should address implementation gaps; institutional strengthening should support continuity; assisted hybrid service design and usability testing should address digital access limitations; and additional local regulation should be considered only where systematic normative review demonstrates a genuine regulatory need. The study offers an original socio-legal explanation of how culturally accommodative communication can mediate the practical realization of elderly rights, while remaining dependent on adequate institutional and technological support.

Keywords: Elderly Protection; Hybrid Services; Local Wisdom; Socio-Legal Implementation; Verbal and Nonverbal Communication.

ABSTRAK

Penelitian ini mengkaji implementasi sosio-legal perlindungan lansia melalui model LANTERA (*Layanan Lansia Tangguh dan Sejahtera*) di Kabupaten Bandung, dengan berfokus pada bagaimana komunikasi yang berakar pada budaya serta pengaturan layanan hibrida menerjemahkan hak-hak formal yang dijamin oleh hukum ke dalam pengalaman pelayanan yang mudah diakses, partisipatif, dan bermartabat. Penelitian ini berangkat dari kesenjangan yang masih terjadi antara jaminan hukum bagi lanjut usia dan realisasi praktisnya dalam penyelenggaraan pelayanan publik di tingkat lokal. Penelitian ini menggunakan desain *convergent parallel mixed-methods* dengan pendekatan sosio-legal yang menggabungkan analisis normatif terhadap kerangka hukum nasional dan daerah dengan data empiris dari 113 responden lanjut usia di tiga desa di Kecamatan Paseh, Kabupaten

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Bandung. Data dikumpulkan melalui kuesioner, wawancara mendalam, diskusi kelompok terpumpun (*focus group discussion*), observasi lapangan, dan telaah dokumentasi. Data dianalisis menggunakan statistik deskriptif, analisis tematik, analisis isi, serta matriks kepatuhan sosio-legal. Temuan penelitian menunjukkan bahwa aspek aksesibilitas, partisipasi, martabat, dan dukungan kesejahteraan telah dioperasionalkan secara parsial dan paling nyata terlihat dalam pendampingan berbasis komunitas, penggunaan komunikasi verbal dan nonverbal yang akrab secara kultural, serta interaksi interpersonal yang menghormati lansia. Penggunaan bahasa Sunda, penyampaian melalui cerita, gestur, kemampuan mendengarkan secara penuh perhatian, serta interaksi yang sabar berkaitan dengan terciptanya pengalaman pelayanan yang lebih mudah dipahami, lebih familiar, dan lebih menghargai martabat lansia. Namun demikian, penanganan pengaduan, keberlanjutan pelayanan, formalisasi akses yang didampingi, serta akses digital secara mandiri masih belum berkembang secara memadai. Kelemahan tersebut mencerminkan adanya kesenjangan implementasi, kelembagaan, desain layanan, perkembangan kapasitas, serta kemungkinan kesenjangan dalam tingkat kekhususan regulasi, dan bukan semata-mata akibat satu bentuk kekurangan regulasi. Temuan ini mengimplikasikan bahwa respons kebijakan perlu dibedakan berdasarkan jenis kesenjangan yang ditemukan. Prosedur pelayanan dan mekanisme pengaduan perlu diperkuat untuk mengatasi kesenjangan implementasi; penguatan kelembagaan diperlukan untuk menjamin keberlanjutan layanan; desain layanan hibrida dengan pendampingan serta pengujian kegunaan (*usability testing*) diperlukan untuk mengatasi keterbatasan akses digital; sementara itu, pembentukan regulasi daerah tambahan sebaiknya hanya dipertimbangkan apabila kajian normatif yang sistematis menunjukkan adanya kebutuhan regulatif yang nyata. Penelitian ini menawarkan penjelasan sosio-legal yang orisinal mengenai bagaimana komunikasi yang akomodatif terhadap budaya dapat memediasi realisasi praktis hak-hak lansia, meskipun efektivitasnya tetap bergantung pada dukungan kelembagaan dan teknologi yang memadai.

Kata kunci: Perlindungan Lansia; Layanan Hibrida; Kearifan Lokal; Implementasi Sosio-Legal; Komunikasi Verbal dan Nonverbal.

INTRODUCTION

Indonesia is experiencing a rapid demographic transition toward an aging society, creating increasing demands for social welfare, public services, and legal protection for older persons. The proportion of Indonesians aged 60 years and above reached approximately 11.75% of the total population in 2023 (BPS, 2023). Indonesia had already entered the aging-population phase in 2021, when older persons accounted for approximately 10.82% of the national population (BPS, 2021; UNFPA, 2022), and this demographic transition is expected to continue in the coming decades (Romadlona et al., 2026). This demographic shift has important legal and social consequences because older persons often experience limitations in accessing health care, social assistance, public services, and digital service systems. Indonesian law already provides a normative basis for the protection of the elderly through Law No. 13 of 1998 on the Welfare of the Elderly, Government Regulation No. 43 of 2004, Law No. 23 of 2014 on Regional Government, Law No. 25 of 2009 on Public Services, and related regional regulations. Nevertheless, the existence of legal guarantees does not automatically ensure their effective realization at the local level. Administrative fragmentation, limited institutional capacity, unequal access to digital technologies, and culturally inappropriate forms of service delivery may create a gap between formally recognized rights and the everyday experiences of older persons. This condition makes it necessary to examine not only what the law provides, but also how legal obligations are translated into accessible, participatory, and dignified services in local communities.

Previous studies relevant to this issue can be grouped into three main strands. The first concerns legal protection and the implementation of elderly rights. Existing studies show that formally recognized rights do not necessarily translate into effective protection when institutional readiness, enforcement mechanisms, monitoring systems, public trust, and culturally sensitive service delivery remain weak (Al

Bqour, 2022; Balynska et al., 2024; Kohn et al., 2023; Suranto & Darumurti, 2024). The second strand focuses on digital inclusion and access to public services. Research demonstrates that elderly and marginalized groups face barriers not only in devices and connectivity but also in digital literacy, usability, safety, trust, and service-system design (Apriliani et al., 2021; Djatmiko et al., 2025; Hermawan, 2019). Studies of hybrid participation further suggest that digital platforms can broaden access for individuals constrained by mobility, health conditions, or geographical distance, while unequal infrastructure and technological readiness may simultaneously reproduce or intensify the digital divide (Ode et al., 2025). The third strand addresses local wisdom and culturally grounded communication, emphasizing that culturally familiar language, interpersonal relations, embodied interaction, and communal values shape participation, trust, and social acceptance. In the Sundanese context, vernacular communication has been shown to operate at both cognitive and affective levels, enabling locally expressed values to be more effectively understood and internalized (Tarlum et al., 2025). The principles of *silih asah* [mutual learning], *silih asih* [mutual care and affection], and *silih asuh* [mutual guidance and protection] likewise function as practical mechanisms of reciprocal learning, affective solidarity, respectful interaction, care, and collective protection. (Fazri & Ruqayah, 2026). Community-based cultural practices also demonstrate that social values may be enacted through repeated embodied interaction, cooperation, reassurance, and facilitation rather than through verbal instruction alone (Herdiansyah et al., 2025). These findings reinforce earlier studies highlighting the importance of local language, interpersonal relationships, verbal and nonverbal communication, and communal practices in strengthening social support and service acceptance (Chalik et al., 2023; Kusumawati, 2016; Meylani & Hermawan, 2024). Nevertheless, these three bodies of literature have largely developed in parallel. Legal studies rarely examine how statutory obligations are experienced by elderly service users; digital inclusion studies seldom connect accessibility barriers to specific legal duties; and studies of Sundanese local wisdom and culturally grounded communication have not sufficiently examined such practices as mechanisms for implementing legally protected rights for the elderly within hybrid public service arrangements. This fragmentation leaves an important socio-legal gap regarding how law, culture, institutional practice, and hybrid service design interact to translate formal elderly rights into accessible, participatory, and dignified services at the local level.

To address this gap, this study examines the socio-legal implementation of elderly protection through the LANTERA (Layanan Lansia Tangguh dan Sejahtera-Resilient and Prosperous Elderly Services) model in Bandung Regency. LANTERA is a research-based hybrid service model that combines community-based assistance, culturally grounded verbal and nonverbal communication, and a developing digital-service component. The study pursues three interrelated objectives. First, it evaluates the extent to which legal obligations regarding accessibility, participation, dignity, public service accountability, and elderly welfare are reflected in LANTERA's implementation. Second, it examines how verbal and nonverbal communication rooted in Sundanese local wisdom contributes to elderly persons' access to services, participation, and sense of dignity while also identifying the barriers that continue to limit independent digital access. Third, it identifies the regulatory, institutional, implementation, and service-design gaps arising from the implementation of LANTERA and evaluates which legal or administrative instruments, if any, are appropriate to address those gaps. By connecting normative legal analysis with the experiences of service recipients, the study seeks to provide a more empirically grounded explanation of how elderly rights are implemented in a culturally specific local-service setting.

This study argues that the effective protection of older persons depends not only on the formal availability of legal rights and services but also on whether service environments enable those rights to be experienced in ways that preserve dignity, meet individual needs, and support meaningful participation.

Drawing on Vizard and Burchardt's (2023) analytical framework of dignity and older-person-centered services, the study understands service arrangements as capable of either expanding or constraining older persons' real opportunities to access support, participate in service processes, and experience respectful treatment. This perspective is complemented by Communication Accommodation Theory, which explains how institutional interactions may become more inclusive when service providers adapt their language, communicative style, and verbal and nonverbal behavior to the social and cultural characteristics of service recipients, thereby reducing social distance and strengthening understanding, trust, and engagement (Giles et al., 2024). In the LANTERA context, the use of the Sundanese language, culturally familiar verbal interaction, respectful nonverbal behavior, and community-based assistance is understood as a practical mechanism by which elderly rights may become more accessible and socially meaningful. However, such culturally accommodative communication cannot by itself resolve weaknesses in complaint mechanisms, service continuity, institutional coordination, or independent digital access; consequently, effective elderly protection requires both dignified and communicatively responsive service practices and an institutional framework capable of sustaining them.

RESEARCH METHODS

The unit of analysis in this study comprises two interrelated components: the legal framework governing the protection of the elderly and public services, and the local implementation of the LANTERA service model in Bandung Regency. The normative component examines the legal obligations relating to accessibility, participation, dignity, service accountability, and elderly welfare as established principally in Law No. 13 of 1998 on the Welfare of the Elderly, Government Regulation No. 43 of 2004 on Efforts to Improve the Social Welfare of the Elderly, Law No. 25 of 2009 on Public Services, Law No. 23 of 2014 on Regional Government, and West Java Provincial Regulation No. 1 of 2023 on the Implementation of Elderly Welfare. The empirical component focuses on how these obligations are experienced and implemented through LANTERA (Layanan Lansia Tangguh dan Sejahtera-Resilient and Prosperous Elderly Services), particularly regarding community-based assistance, verbal and nonverbal communication, culturally responsive interaction, service accessibility, and the emerging digital component. These two units of analysis allow the study to examine both the formal content of legal obligations and their practical realization in local elderly-service settings.

The study employed a socio-legal convergent parallel mixed-methods design that combined normative legal analysis with quantitative and qualitative field data. This design was selected because the research questions require simultaneous examination of legal standards and the experiences of elderly service recipients rather than a sequential explanation of one form of data by another. Normative and empirical data were therefore collected and analyzed using their respective procedures, and subsequently integrated during the interpretation stage. The convergent design enabled the study to assess whether formally recognized legal obligations corresponded with actual service experiences and to identify whether observed problems primarily reflected regulatory, institutional, implementation, or service-design gaps. In this way, the socio-legal approach was used not merely to describe applicable legislation but to evaluate how legal principles operate within culturally specific and hybrid service practices.

The empirical data were drawn from elderly respondents and community actors involved in LANTERA-related activities in Kecamatan Paseh, Bandung Regency. Quantitative data were obtained from 113 respondents aged 60 years and older in Desa Cijagra, Karangnunggal, and Mekarpawitan. The three villages were selected because of their involvement in LANTERA community outreach activities conducted from August to October 2025, while the research data analyzed in this study were collected from August

to September 2025. Participants were purposively selected based on two criteria: being aged 60 years or older and having prior contact with community-based elderly services, particularly *Posyandu Lansia* [integrated elderly health posts]. The qualitative component involved individual interviews with 10 elderly informants and three community cadres or field facilitators, as well as two focus group discussions involving 60 participants in total: 50 elderly participants, five community cadres, three village officials, and two family members of elderly participants. Informant recruitment was facilitated by elderly-service cadres and local community health centres (*puskesmas*). To protect anonymity while maintaining analytical traceability, elderly interviewees were coded OP01–OP10, cadres or facilitators C01–C03, and elderly FGD participants FGD1-OPxx and FGD2-OPxx according to their respective discussion groups.

Data were collected through questionnaires, in-depth interviews, focus group discussions, field observations, and documentation review. Survey participants were recruited collaboratively: community health cadres initially approached potential participants using their knowledge of local elderly residents, after which members of the research team explained the study's purpose and obtained informed consent prior to data collection. The quantitative instrument used a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and covered six dimensions: functional needs and assistance; technical, physical, and psychosocial barriers; verbal communication; nonverbal communication; conformity with local wisdom and affordability; and perceived usefulness and convenience. Internal consistency was assessed using Cronbach's alpha based on the raw SPSS dataset (N = 113). Four composite scales demonstrated strong reliability: Service Responsiveness and Functional Support ($\alpha = 0.912$, $k = 5$), Verbal Communication and Service Quality ($\alpha = 0.939$, $k = 7$), Verbal and Nonverbal Communication ($\alpha = 0.920$, $k = 5$), and Local Wisdom and Cultural Responsiveness ($\alpha = 0.963$, $k = 4$), all exceeding the conventional threshold of 0.70 (Nunnally, 1978). Qualitative data were collected independently through interviews, FGDs, and direct observation of verbal and nonverbal communication patterns. Because several questionnaire items concerned the developing LANTERA digital prototype—including icon clarity, color contrast, and visual cues—responses to these items were treated as perceptions of anticipated or prototype-based usability rather than as evaluations of a fully operational digital system.

The quantitative data were analyzed descriptively, using means and standard deviations for each indicator and dimension; no inferential statistical tests were performed. Negatively worded barrier items were interpreted separately from positively worded service indicators so that higher barrier scores were not treated as evidence of more favorable service perceptions. Qualitative data from interviews, FGDs, and observations were analyzed thematically to identify recurring patterns related to service accessibility, participation, dignity, communication, digital barriers, and institutional implementation, while content analysis was used to identify recurrent expressions and communicative patterns in the verbal and nonverbal data. Normative legal analysis was conducted by identifying the relevant statutory obligations and comparing them with empirical evidence. The normative, quantitative, and qualitative findings were then integrated through a socio-legal compliance matrix linking four analytical elements: (1) the empirical finding, such as a survey score or qualitative theme; (2) the service experience represented by that finding; (3) the specific legal obligation or provision to which it relates; and (4) the resulting assessment of implementation, including supported, partially implemented, implementation-gap, institutional-gap, or other relevant classifications. This procedure ensured that legal compliance was not inferred from numerical scores alone but was assessed through the combined interpretation of legal provisions and empirical evidence.

RESULTS

Operationalization of Legal Obligations in LANTERA Services

The findings indicate that LANTERA partially operationalizes key legal principles concerning accessibility, participation, dignity, welfare support, and public-service accountability, as reflected in Indonesia's elderly welfare and public service framework (Republic of Indonesia, 1998, 2004, 2009, 2014; West Java Provincial Government, 2023). Across the primary empirical data, community-based outreach, facilitator assistance, culturally familiar communication, respectful interpersonal treatment, and functional support were consistently visible in service practice, indicating observable normative-empirical alignment in assisted accessibility, opportunities for participation, dignity, and welfare support. At the same time, the evidence also revealed less-developed aspects of implementation, particularly in complaint handling, continuity and standardization of services, formalization of family and cadre assistance, and independent digital access. These findings suggest that the translation of legal principles into LANTERA service practices is uneven: several protections are already reflected in everyday interactions and support mechanisms, while others remain dependent on informal arrangements or have not yet been fully institutionalized.

To systematically assess the relationship between these legal obligations and their implementation in practice, Table 1 integrates the normative and empirical evidence through a socio-legal compliance matrix. Each legal principle is linked to the relevant statutory provision, the primary empirical evidence, the principal finding, and the resulting implementation status. The matrix does not treat survey scores as independent indicators of legal compliance; rather, quantitative findings are interpreted together with interview, focus group discussion, observation, and documentation data. This approach makes it possible to distinguish between legal principles that are already reflected in everyday service practices and those whose implementation remains dependent on informal assistance, incomplete procedures, or limited institutionalization.

Table 1. Socio-Legal Compliance Matrix of LANTERA Implementation

Legal Principle / Obligation	Legal Basis / Exact Provision	Empirical Evidence	Key Finding	Implementation Status
Accessibility	Law No. 13/1998, Arts. 5(2)(e) and 17(1)–(3); Government Regulation No. 43/2004, Art. 3(1)(e) and 3(2)(c); Law No. 25/2009, Arts. 4(j), 4(l), and 29(1); West Java Provincial Regulation No. 1/2023, Arts. 3(2)(e), 10(2)(b) and (d), and 12(1)(c)	Survey (M = 4.00), FGD, observation	Community-based outreach and facilitator assistance support access, but older participants remain dependent on assistance, particularly for digital services	Partially operationalized
Participation	Law No. 13/1998, Art. 3; Law No. 25/2009, Arts. 4(f) and 20(2); West Java Provincial Regulation No. 1/2023, Arts. 22(1)–(2) and 23(1)	Survey (M = 3.78), FGD	Dialogue and storytelling create opportunities for older persons to express needs and experiences, but hesitation to ask questions continues to constrain active participation	Partially operationalized

Legal Principle / Obligation	Legal Basis / Exact Provision	Empirical Evidence	Key Finding	Implementation Status
Dignity and respectful treatment	Law No. 13/1998, Arts. 5(1) and 17(1); Law No. 25/2009, Arts. 4(c), 4(g), and 4(j); West Java Provincial Regulation No. 1/2023, Art. 10(2)(e)	Interview, FGD, observation	Patience, attentive listening, eye contact, familiar language, and respectful interpersonal interaction are consistently evident in service encounters	Operationalized in interpersonal practice
Welfare and functional support	Law No. 13/1998, Art. 8; Government Regulation No. 43/2004, Art. 3; Law No. 23/2014, Art. 12(1)(f); West Java Provincial Regulation No. 1/2023, Arts. 9(1)–(2) and 28(3)(g)	Survey (M = 3.74, SD = 0.440), interview, observation	Functional assistance is available through facilitators, cadres, and family members, but remains substantially dependent on interpersonal and informal support	Present but partially institutionalized
Complaint mechanism and accountability	Law No. 25/2009, Arts. 21(j), 36, and 37	FGD, documentation review	Participants could not identify a clear service-level complaint channel, and no sufficiently visible LANTERA-specific complaint procedure was identified	Implementation /accountability gap
Service continuity and standardization	Law No. 25/2009, Arts. 4(k)–(l), 20(1) and (3), and 21(d), (k)–(n); Law No. 23/2014, Art. 12(1)(f)	Interview, FGD	Service availability and assistance remain dependent on personnel availability, schedules, and informal support rather than fully standardized service arrangements	Institutional/service-standard gap
Independent digital access	Law No. 25/2009, Arts. 4(j), 4(l), and 29(1), read together with the accessibility principle in Law No. 13/1998, Art. 17(3)	Survey (M = 4.00; M = 4.22, SD = 0.417; M = 4.05, SD = 0.625), interview, FGD	Older participants report substantial digital barriers and continued reliance on family members or cadres; independent digital access has not yet been demonstrated	Limited independent access

Source: Survey, interviews, focus group discussions, field observations, and documentation review, 2025.

Note. The legal basis for independent digital access is informed by broader statutory principles concerning accessibility, ease of use, and special treatment for vulnerable groups. The applicable legislation does not establish a separate right to independent digital use. Implementation status is therefore derived from the

combined interpretation of normative provisions and empirical evidence rather than from numerical survey scores alone.

Accessibility is a central element of elderly protection under Indonesia's legal framework, which requires older persons to receive appropriate access to welfare support, public facilities, and services, including forms of assistance that accommodate their particular needs (Republic of Indonesia, 1998, 2004, 2009). The primary data show that access to LANTERA services was generally achieved through assisted rather than fully independent mechanisms. Survey respondents reported a relatively high need for assistance from family members or community cadres when accessing digital services ($M = 4.00$), indicating continued dependence on interpersonal support. This pattern was reinforced by the focus group data, as one participant explained, "Earlier, I didn't know where to get my services from, but now the facilitators help us right from the start in our homes" (FGD1-OP01, FGD, 2025). Field observations similarly showed that community-based outreach and direct facilitator assistance were used to support older participants in reaching services, obtaining explanations, and navigating service procedures. However, this accessibility remained strongly dependent on the presence of facilitators, family members, or cadres, particularly when digital components were involved. Accordingly, accessibility in LANTERA services was partially operationalized: assisted and community-based access was relatively well supported, whereas independent access, particularly through digital means, remained limited.

Participation is also recognized as an important principle in elderly welfare and public service delivery, particularly through opportunities for service users to express needs, communicate concerns, and engage in interactions that affect the services they receive (Republic of Indonesia, 1998, 2009; West Java Provincial Government, 2023). In the LANTERA setting, primary data indicate that participation was facilitated through dialogue, storytelling, and informal interpersonal communication, allowing older participants to describe their experiences and service needs in a relatively comfortable setting. One focus group participant stated that "telling our stories in a relaxed way; it's like someone is really listening to us" (FGD1-OP02, FGD, 2025), illustrating how conversational forms of interaction created space for older persons to communicate their concerns. However, this opportunity did not always translate into active participation. Survey findings showed a relatively high level of hesitation or embarrassment when asking questions about matters that were not clearly understood ($M = 3.78$), a pattern also reflected in qualitative accounts of reluctance to raise concerns. These findings indicate that LANTERA provides meaningful opportunities for participation through dialogic and culturally familiar interaction, but psychosocial barriers continue to limit fuller engagement. Participation was therefore partially operationalized: opportunities for participation were present, but active participation remained constrained.

Dignity and respectful treatment constitute another important dimension of elderly protection, requiring service delivery to recognize older persons as rights-bearing individuals who should be treated with respect, appropriate attention, and sensitivity to their particular circumstances (Republic of Indonesia, 1998, 2009; West Java Provincial Government, 2023). In the LANTERA service setting, the primary evidence indicates that dignity was reflected primarily through interpersonal practices such as patience, attentive listening, eye contact, use of familiar language, and respectful forms of interaction. These practices were consistently described by participants as contributing to a sense of being acknowledged and valued during service encounters. One focus group participant stated, "They listen carefully and make us feel valued" (FGD1-OP03, FGD, 2025). Field observations also showed that facilitators generally maintained patient, attentive interactions with older participants, while the use of local language was associated with more familiar and accessible communication during service delivery. These findings suggest that the principle of dignity was upheld in practice, particularly through the

relational and interpersonal aspects of service delivery, even though such respectful practices were not yet fully codified in formalized service standards.

Welfare and functional support are central to the legal framework for the protection of the elderly, which places responsibility on the government, communities, and families to support the social welfare and daily functioning of older persons (Republic of Indonesia, 1998, 2004; West Java Provincial Government, 2023). In the LANTERA setting, survey results for the functional needs and support dimension produced a mean score of 3.74 (SD = 0.440), indicating a generally positive perception of the assistance available to participants. Interview accounts and field observations further showed that older persons frequently relied on community cadres, facilitators, and family members for practical assistance in accessing information, navigating services, and completing service-related activities. This support was particularly visible in community-based and home-oriented interactions, where cadres and family members often functioned as intermediaries between older participants and the service process. However, the continued reliance on interpersonal and informal support arrangements indicates that such assistance was not yet fully embedded within a standardized institutional mechanism. Welfare and functional support were therefore present in practice but only partially institutionalized.

Public-service accountability requires accessible mechanisms through which service users can submit complaints, report problems, and obtain responses to service deficiencies (Republic of Indonesia, 2009). In the LANTERA implementation setting, however, primary evidence points to a clear weakness in the operationalization of this requirement. During the focus group discussion, one participant asked, "Where do we complain if something goes wrong?" (FGD2-OP01, FGD, 2025), indicating that the available complaint pathway was not clearly understood by service users. This finding was reinforced by the documentation review, which did not identify a specific and clearly communicated complaint-handling procedure for LANTERA services. The issue, therefore, does not primarily concern the absence of a legal obligation, because complaint handling is already required within the public-service framework, but rather the lack of a sufficiently visible and operational mechanism at the service level. This finding is best assessed as an implementation/accountability gap.

Service continuity is also an important aspect of effective public-service delivery, particularly where older persons depend on regular and predictable support (Republic of Indonesia, 2009, 2014). In the LANTERA setting, however, primary evidence indicates that continuity remained partly dependent on the availability of particular staff members, facilitators, and service schedules. One focus group participant noted that "at other times, services can depend on how many staff are there and their schedules" (FGD2-OP02, FGD, 2025). This pattern was compounded by the continued reliance of older participants on family members and community cadres to obtain information, navigate procedures, and access service components. Although such assistance helped sustain access to service in practice, it also indicates that continuity was not yet secured through a fully standardized and institutionally embedded service mechanism. The findings therefore indicate an institutional limitation in service standardization, as service continuity and assistance remained dependent on personnel availability, scheduling arrangements, and informal support from families and community cadres.

Digital accessibility remained one of the clearest limitations in the operationalization of LANTERA services. Survey findings showed that respondents frequently reported rarely using mobile phones for public services (M = 4.22, SD = 0.417), experiencing difficulty in learning to use digital services (M = 4.05, SD = 0.625), and continuing to require assistance from family members or community cadres when accessing digital service components (M = 4.00). These patterns were consistent with qualitative evidence. One interview participant stated, "I'm not good with smartphones, so I need help" (OP04, Interview, 2025),

while an FGD participant explained, “It’s safer when family comes to visit instead of using online apps” (FGD2-OP03, FGD, 2025). Because the digital component of LANTERA remained at the prototype stage, these findings should not be interpreted as evidence of demonstrated operational usability or failure. Rather, they indicate that older participants still depended substantially on assisted access and had not yet developed independent digital capability. In this respect, assisted access existed, but independent digital capability remained limited.

To provide a concise quantitative overview of the empirical patterns underlying the socio-legal findings, Table 2 summarizes selected indicators related to assisted access, participation, functional support, and digital barriers among older participants. These indicators are not intended to determine legal compliance independently, but to provide descriptive evidence that complements the interview, focus group discussion, observation, and documentation findings presented in the surrounding analysis. Particular attention is given to indicators that distinguish between access supported by family members or community cadres and the ability of older persons to access services independently, especially through digital means.

Table 2. Selected Empirical Indicators of Access, Participation, Functional Support, and Digital Barriers in LANTERA Services

Empirical Indicator	Mean	SD	Empirical Interpretation
Need for family or cadre assistance in accessing digital services	4.00	Not reported	High dependence on assisted access
Hesitation or embarrassment when asking questions	3.78	Not reported	Continuing psychosocial barriers to active participation
Functional needs and support	3.74	0.440	Generally positive perception of available functional support
Rarely use mobile phones for public services	4.22	0.417	Substantial barrier to independent digital access
Difficulty learning to use digital services	4.05	0.625	Substantial digital learning barrier

Source: Survey data processed using SPSS version 25, 2025.

Note. Higher scores on negatively worded digital-barrier items indicate greater perceived barriers rather than more favorable assessments of the service. All indicators are interpreted descriptively and are not used to establish causal relationships or formal legal compliance.

The findings provide a differentiated answer to the first research objective. LANTERA has partially operationalized the legal principles of accessibility, participation, dignity, welfare support, and public-service accountability, but the degree of implementation varies across service dimensions. The strongest normative–empirical alignment is evident in assisted accessibility, interpersonal participation, respectful treatment, and functional support, whereas complaint handling, service continuity, formalization of assistance, and independent digital access remain less institutionalized. The findings indicate that the main implementation challenge lies not in the absence of legal principles, but in their uneven translation into standardized, accountable, sustainable, and independently accessible service arrangements.

Culturally Grounded Verbal and Nonverbal Communication in Elderly Services

The findings indicate that culturally familiar verbal and nonverbal communication was positively perceived by older participants and was associated with greater ease of understanding, more comfortable interaction, broader opportunities for participation, and a stronger sense of respectful treatment in LANTERA services. Participants' accounts consistently emphasized the value of familiar language, clear explanations, storytelling, gestures, attentive listening, eye contact, patience, and other relational forms of communication during service encounters. These practices were consistently associated with interactions that participants perceived as more understandable and socially comfortable, particularly when communication was supported by facilitators or community cadres. However, the positive role of culturally responsive communication did not eliminate all barriers to participation and access. Some participants continued to report hesitation or embarrassment when asking questions, while limited familiarity with digital technologies and continued dependence on family members or cadres constrained independent access to digital service components. The findings suggest that culturally grounded communication was associated with stronger relational and assisted dimensions of accessibility, participation, and dignity, but its effects remained limited by persistent psychosocial and digital barriers.

To provide a descriptive overview of participants' perceptions of LANTERA services and communication practices, six questionnaire dimensions were summarized using mean scores and standard deviations. As shown in Table 3, these dimensions capture functional support, perceived barriers, verbal communication, nonverbal communication, cultural responsiveness and affordability, and perceived usefulness and convenience. The values are used to describe patterns in respondents' perceptions and to support the qualitative findings from interviews, focus group discussions, and field observations. They are not treated as causal variables, and differences in mean scores should therefore be interpreted as descriptive patterns rather than evidence that one dimension directly produced changes in accessibility, participation, or dignity.

Table 3. Descriptive Statistics of LANTERA Service and Communication Dimensions

Dimension	Mean	SD
Functional needs and support	3.74	0.440
Barriers related to technical, physical, and psychosocial factors	3.98	0.333
Verbal communication	3.97	0.538
Nonverbal communication	4.01	0.381
Cultural responsiveness and affordability	3.79	0.527
Usefulness and convenience	3.85	0.491

Source: Survey data processed using SPSS version 25, 2025.

Note. The scores represent descriptive perceptions of the six dimensions. Higher scores on the barrier dimension indicate greater perceived barriers, whereas higher scores on the remaining dimensions generally indicate more favorable perceptions. The results are not interpreted as evidence of causal relationships.

The descriptive patterns presented in Table 3 require two interpretive cautions. First, several questionnaire items within the functional-support, nonverbal-communication, and cultural-responsiveness dimensions showed no variation in responses ($SD = 0.000$). These values are reported as characteristics of the observed response distribution and are not interpreted as evidence of universally positive experience. Second, several items within the barrier dimension were negatively worded, including statements such as “I rarely use my mobile phone for public services” and “Learning to use digital services was difficult.” For these items, higher scores indicate greater perceived difficulty rather than a more favorable assessment of the service. The barrier dimension is therefore interpreted separately from the positively oriented dimensions in Table 3, and its relatively high mean score should be understood as reflecting the persistence of technical, physical, or psychosocial obstacles rather than stronger service performance.

Within this descriptive context, verbal communication emerged as an important element of communicative accessibility. Although the overall verbal-communication dimension in Table 3 showed a relatively high mean score ($M = 3.97$, $SD = 0.538$), the item concerning explanations delivered in Sundanese received an even higher score ($M = 4.20$, $SD = 0.404$). This pattern was consistent with interview evidence, as one participant stated, “When they speak in Sundanese, I can understand what they are saying” (OP01, Interview, 2025). Participants also described conversational explanations and familiar ways of speaking as making service encounters easier to follow and less socially distant. These findings indicate that participants perceived using Sundanese as a practical means of making service information more understandable and communication more familiar during service encounters.

Nonverbal communication was also associated with how older participants understood and experienced LANTERA services. The relatively high score for the nonverbal-communication dimension in Table 3 ($M = 4.01$, $SD = 0.381$) was supported by interview accounts describing the usefulness of gestures, demonstrations, eye contact, facial expressions, visual examples, and patient facilitator behavior. One participant explained, “When explanations are given with gestures and examples, it helps me understand better” (OP02, Interview, 2025). These forms of interaction reflected the interpersonal communication observed during service delivery and were perceived to make explanations easier to follow. However, a distinction is necessary between experienced nonverbal communication and responses to the visual features of the developing digital prototype. Assessments of gestures, eye contact, smiling, and facilitator behavior reflected actual service experience, whereas responses concerning icon clarity, color contrast, and other prototype-related visual cues reflected anticipated usefulness or perceived need rather than demonstrated digital usability.

Participation showed a similarly mixed pattern of enabling and constraining factors. Dialogue, storytelling, relaxed interaction, and opportunities to describe personal experiences created spaces where older participants could express their needs and concerns more comfortably. At the same time, these opportunities did not always translate into active engagement. Survey findings showed that hesitation or embarrassment about asking questions remained relatively high ($M = 3.78$), while interview evidence reinforced the presence of this psychosocial barrier. One participant stated, “Sometimes I don't ask because I feel ashamed” (OP03, Interview, 2025). These findings indicate that culturally familiar and dialogic forms of communication created meaningful opportunities for participation, but embarrassment and reluctance could still restrict their actual use. The findings, therefore, distinguish between the availability of participatory opportunities and the actual exercise of participation.

Dignity was experienced primarily through relational and nonverbal aspects of service delivery. The item on officer attitude, including smiling, eye contact, patience, and attentiveness, received a

relatively high score ($M = 4.05$, $SD = 0.625$). Qualitative evidence reinforced this pattern. One focus group participant stated, “They treat us with respect by listening to our worries” (FGD1-OP04, FGD, 2025). Participants’ accounts suggest that dignity in LANTERA was experienced primarily through the quality of relational interaction during service encounters, particularly attentive listening, patience, familiar forms of address, and visible interpersonal respect. In this sense, dignity in LANTERA was experienced primarily through the quality of relational interaction during service encounters, including attentive listening, patience, familiar forms of address, and visible interpersonal respect.

In the empirical setting, cultural responsiveness was reflected in observable service practices rather than in an abstract invocation of local wisdom. These practices included the use of the Sundanese language, familiar conversational styles, storytelling, relational assistance, patient interaction, respectful behavior, and the involvement of community facilitators and cadres. The combined cultural-responsiveness and affordability dimension in Table 3 showed a generally favorable descriptive pattern ($M = 3.79$, $SD = 0.527$). Because this dimension incorporates both cultural responsiveness and affordability, the quantitative score was not interpreted as a standalone measure of cultural responsiveness. Qualitative evidence from interviews, focus group discussions, and field observations was therefore used to examine more specifically how cultural responsiveness was manifested in service interactions. These qualitative findings indicate that local wisdom in LANTERA was expressed through everyday linguistic, communicative, and relational practices that older participants could recognize and experience directly, rather than through cultural symbols or formal labels alone.

Digital barriers nevertheless constrained the extent to which culturally responsive communication could translate into independent access. Respondents reported infrequent use of mobile phones for public services ($M = 4.22$, $SD = 0.417$), difficulty learning to use digital services ($M = 4.05$, $SD = 0.625$), and continued need for family or cadre assistance ($M = 4.00$). Qualitative accounts similarly indicated continued reliance on interpersonal assistance. These findings distinguish communicatively accessible and assisted services from independently accessible digital services: culturally familiar interaction supported understanding and engagement, but did not, by itself, overcome limitations in digital literacy, confidence, or autonomous use of technology.

The findings address the second research objective by showing that culturally grounded verbal and nonverbal communication was associated with greater communicative accessibility, greater opportunities for participation, and greater perceived dignity in LANTERA services. Sundanese language, conversational explanations, storytelling, gestures, attentive listening, and patient interpersonal interaction constituted the principal communicative practices through which older participants experienced services as more understandable, familiar, and respectful. However, these communicative advantages did not eliminate psychosocial hesitation or barriers to independent digital access. Culturally responsive communication was therefore associated with stronger relational and assisted dimensions of service accessibility and participation, while independent digital capability remained constrained by factors beyond communication alone.

Regulatory, Institutional, Implementation, and Service-Design Gaps

The findings reveal several distinct weaknesses in the implementation of LANTERA, but they do not stem from a single regulatory deficiency. Evidence from the preceding analyses indicates that complaint handling remained unclear, service continuity still depended on staff and scheduling arrangements, and

family and community cadre assistance had not yet been fully formalized within the service structure. At the same time, independent digital capability remained limited, while the digital component itself was still at the prototype stage and therefore could not yet demonstrate operational usability. The documentation review did not identify specific local operational guidance expressly governing culturally responsive and hybrid elderly services of the type represented by LANTERA. Taken together, these findings point to distinct sources of limitation that should be differentiated as implementation gaps, institutional limitations, service-design limitations, developmental limitations, and a possible gap in regulatory specificity, rather than as evidence of a single or uniform regulatory problem.

The complaint mechanism represents a clear implementation gap in public-service accountability. Law No. 25 of 2009 requires public-service providers to establish accessible procedures for receiving and handling complaints (Republic of Indonesia, 2009). In the LANTERA setting, however, primary evidence indicates that this requirement had not yet been translated into a clearly understood service-level mechanism. One focus group participant asked, “Where do we complain if something goes wrong?” (FGD2-OP01, FGD, 2025), indicating uncertainty about where and how to report service problems. This finding was reinforced by the documentation review, which did not identify a clearly communicated complaint-handling procedure specifically associated with LANTERA services. The gap, therefore, concerns the operationalization of an existing legal requirement rather than the absence of a legal obligation. In this respect, the weakness is best understood as an implementation gap in public-service accountability.

Service continuity emerged as an institutional limitation in the implementation of LANTERA. Primary evidence indicated that service availability remained dependent on personnel availability, scheduling arrangements, and the presence of specific facilitators. One focus group participant explained that “at other times, services can depend on how many staff are there and their schedules” (FGD2-OP02, FGD, 2025). Interview accounts and field observations similarly suggested that continuity was easier to maintain when specific facilitators or community cadres were available to support service delivery. These findings indicate that service continuity had not yet been fully embedded in sufficiently stable institutional arrangements and remained dependent on particular personnel and scheduling conditions. The issue is therefore best understood as an institutional limitation affecting service continuity, rather than as evidence of an immediate need for additional regulation.

Dependence on family members and community cadres also points to a limitation in service design rather than, by itself, a regulatory deficiency. Survey findings indicated a relatively high need for assistance when accessing digital service components ($M = 4.00$), a pattern supported by interview accounts and field observations showing that older participants frequently relied on family members, cadres, or facilitators to obtain information, navigate procedures, and use service features. Accessibility was therefore achieved primarily through assisted use rather than through a service design that consistently supported independent access. The presence of family and cadre assistance should not itself be interpreted as a weakness, because such support can be valuable in elderly services. The limitation arises when access remains substantially dependent on such assistance and independent use remains limited. The finding is therefore best understood as a service-design limitation affecting independent access.

A related limitation concerns the digital component's developmental status. As shown in the preceding findings, older participants reported limited use of mobile phones for public services, difficulty learning digital services, and continued reliance on interpersonal assistance. Documentation review further confirmed that the digital component of LANTERA remained at the prototype stage. Consequently, the available evidence does not establish the operational usability of the digital component; responses to proposed features are better interpreted as perceptions of anticipated usefulness or need. This issue is

therefore classified as a developmental limitation in service design rather than as evidence of failure of a fully operational digital service.

The documentation review did not identify a specific local operational instrument that expressly regulates culturally responsive and hybrid elderly services of the type represented by LANTERA. This finding should not be interpreted as evidence that there is no elderly welfare regulation. A general legal framework already exists through Law No. 13 of 1998 on the Welfare of the Elderly (Republic of Indonesia, 1998), Government Regulation No. 43 of 2004 (Republic of Indonesia, 2004), Law No. 25 of 2009 on Public Services (Republic of Indonesia, 2009), Law No. 23 of 2014 on Regional Government (Republic of Indonesia, 2014), and West Java Provincial Regulation No. 1 of 2023 (West Java Provincial Government, 2023). The issue identified in this study concerns whether these existing instruments provide sufficiently specific operational guidance for culturally responsive, assisted, and hybrid elderly-service delivery at the regency level. The finding, therefore, suggests a possible gap in regulatory specificity rather than an absence of regulation of elderly welfare. Whether this possible gap requires a new local regulatory instrument or can instead be addressed through administrative standards, service procedures, or institutional coordination is examined further in the Discussion.

The findings address the third research objective by showing that the weaknesses identified in LANTERA stem from multiple sources and therefore require differentiated responses. The unclear complaint mechanism reflects an implementation gap, while dependence on personnel availability and service schedules indicates an institutional limitation. Continued reliance on family members and community cadres points to a service-design limitation affecting independent access, while the prototype status of the digital component represents a developmental limitation in service design. At the normative level, the absence of specific local operational guidance identified through the documentation review suggests a possible gap in regulatory specificity, but not an absence of legal protection for older persons in general. These distinctions are important because not every weakness in service implementation necessarily requires new regulation. Appropriate responses may instead involve improvements in implementation, institutional arrangements, service design, operational standards, or, where a genuine regulatory gap is demonstrated, more specific local regulatory guidance. Table 4 summarizes these distinctions, their supporting evidence, and the corresponding indicative responses.

Table 4. Summary Classification of Gaps Identified in LANTERA Services

Empirical Problem	Main Evidence	Classification	Indicative Response
Unclear complaint mechanism	FGD2-OP01; documentation review	Implementation gap	Complaint-handling procedure and service standard
Service continuity dependent on staff and schedules	FGD2-OP02; interviews; observations	Institutional limitation	Clearer institutional roles, coordination, and continuity procedures
Dependence on family members and cadres	Survey, M = 4.00; interviews; observations	Service-design limitation	Formalized assisted-service protocol combined with measures supporting independent access

Digital component remains at the prototype stage	Survey; qualitative evidence; documentation review	Developmental limitation	Prototype usability testing and development of an assisted hybrid service design
No specific local operational guidance identified in the documentation review	Legal and documentation review	Possible regulatory-specificity gap	Further normative review; local implementing regulation may be considered if inadequacy is confirmed

Source: Survey, interviews, focus group discussions, field observations, legal review, and documentation review, 2025.

Note. The classifications in Table 4 distinguish the observed source of each limitation and do not imply that all identified weaknesses require additional regulation.

DISCUSSION

The findings show that the implementation of elderly protection through LANTERA is characterized by a clear asymmetry between relatively strong relational implementation and weaker institutionalization. Legal principles concerning accessibility, participation, dignity, and welfare support were most visibly realized when services were mediated through community-based assistance, culturally familiar verbal and nonverbal communication, and respectful interpersonal interaction. In contrast, complaint handling, service continuity, the formalization of family and cadre assistance, and independent digital access remained less developed because they depended on more stable procedural, institutional, and service-design arrangements. The findings, therefore, indicate that the effectiveness of elderly protection cannot be explained solely by the presence or absence of legal norms. Rather, the practical realization of elderly rights depends on how those norms are translated into everyday service practices, institutional procedures, and accessible forms of support. The distinction among implementation gaps, institutional limitations, service-design limitations, developmental limitations, and a possible gap in regulatory specificity further demonstrates that uneven protection in LANTERA does not originate from a single regulatory deficiency, but from multiple layers of implementation that require differentiated forms of response.

The asymmetry between relatively strong relational implementation and weaker institutionalization can be explained through Vizard and Burchardt's (2023) capability-based framework of dignity and older-person-centered services. Their framework shifts attention from the mere formal availability of rights or services to the substantive opportunities that older persons have to achieve outcomes they have reason to value. In particular, Vizard and Burchardt conceptualize "dignity and autonomy" as "cross-cutting outcomes" across central capabilities in later life (2023, p. 1665) and argue that health and care environments can "expand or constrain the capabilities for dignity" depending on their "nature, scope and design" (p. 1667). This perspective helps explain why accessibility, participation, and dignity in LANTERA became most visible through facilitator assistance, patient interaction, attentive listening, familiar language, and other forms of relational support. These practices functioned as enabling conditions through which formally recognized rights could become experienced opportunities: older participants were not merely legally entitled to services but were better able to understand information,

express their needs, receive assistance, and experience respectful treatment. In this sense, dignity was realized not only as a legal principle but through concrete service encounters in which older persons felt heard, assisted, valued, and able to participate. At the same time, the findings expose the limits of this conversion from formal rights to experienced rights. Continued reliance on facilitators, family members, and community cadres indicates that the “real opportunities and freedoms” associated with older-person-centered services (Vizard & Burchardt, 2023, p. 1667) remained partly contingent on the availability of interpersonal support. Assisted accessibility should therefore be understood as a meaningful achievement in rights realization, but not as equivalent to autonomous accessibility: support can expand older persons’ practical capabilities while simultaneously revealing that their ability to exercise those capabilities independently remains constrained.

The communicative patterns identified in LANTERA can be further explained through Communication Accommodation Theory (CAT), which focuses on the verbal and nonverbal adjustments people make in response to their interaction partners and on the interpersonal and intergroup consequences of those adjustments (Giles et al., 2024). A central proposition of CAT is that communicators may adapt their language and communicative behavior in ways intended to “reduce social distance,” while well-calibrated accommodation can contribute to “improved rapport” and greater “mutual understanding and satisfaction” (Giles et al., 2024). This perspective provides an explanatory lens for understanding why the use of Sundanese, conversational explanations, storytelling, gestures, eye contact, attentive listening, and patient interaction was associated with more understandable, familiar, and respectful service encounters in LANTERA. Sundanese, in particular, functioned not merely as a marker of cultural identity but as a form of communicative accommodation through which service providers could adjust interaction to the linguistic and social familiarity of older participants. Verbal adaptation was reinforced by nonverbal behaviors that signaled attention, patience, and interpersonal recognition, thereby reducing communicative distance and creating more favorable conditions for older persons to understand information and express their needs. However, the persistence of hesitation and embarrassment when asking questions demonstrates an important limit to accommodation. Culturally familiar communication may improve the conditions under which participation becomes possible, but it does not necessarily ensure that older persons will exercise that opportunity. The LANTERA findings therefore distinguish between communicative opportunity and actual participation: accommodative communication can make service encounters more accessible and socially comfortable, while psychosocial barriers may continue to constrain whether older persons actively speak, question, or articulate their concerns.

The findings are broadly consistent with three strands of previous research, while also extending them in important ways. First, studies on legal protection for older persons have shown that formally recognized rights may remain ineffective when implementation mechanisms, accountability, monitoring, institutional readiness, and culturally responsive service delivery are weak (Al Bqour, 2022; Balynska et al., 2024; Kohn et al., 2023; Suranto & Darumurti, 2024). The LANTERA findings reinforce this general pattern but provide a more differentiated socio-legal account by identifying which obligations were already reflected in practice and which remained only partially implemented or weakly institutionalized. Second, the findings support research on digital inclusion showing that access to digital public services depends not only on the availability of devices or connectivity, but also on digital literacy, confidence, usability, assistance, and service-system design (Apriliani et al., 2021; Djatmiko et al., 2025; Hermawan, 2019; Ode et al., 2025). In LANTERA, hybrid and assisted service arrangements helped maintain access despite limited independent digital capability, but the findings also show that successful assisted access should not be equated with demonstrated digital usability or autonomous digital participation. Third, the

results are consistent with studies emphasizing the importance of local language, interpersonal relations, culturally familiar communication, and community-based practices in strengthening trust, support, and social acceptance (Chalik et al., 2023; Fazri & Ruqayah, 2026; Herdiansyah et al., 2025; Kusumawati, 2016; Meylani & Hermawan, 2024; Tarlam et al., 2025). The LANTERA findings extend this literature by showing that culturally familiar verbal and nonverbal practices were not merely symbolic expressions of local identity, but were directly involved in shaping how older persons understood services, participated in interactions, and experienced respectful treatment.

The principal novelty of this study lies in integrating these three bodies of literature within a single socio-legal analysis of elderly service delivery. Previous studies have largely examined these domains separately: legal studies tend to focus on the gap between formal rights and their institutional implementation, digital inclusion research emphasizes technological and usability barriers, and local wisdom studies concentrate on cultural communication and social relations. By bringing them together, this study demonstrates that culturally accommodative communication can serve as a practical mechanism by which formally recognized elderly rights are experienced in everyday service encounters. At the same time, the findings show that communication alone cannot compensate for weaknesses in complaint procedures, service continuity, institutional coordination, or digital-service design. The study, therefore, contributes a more integrated explanation of the implementation of elderly rights, in which legal protection becomes effective through the interaction among normative obligations, culturally responsive communication, assisted access, and institutional capacity. Its contribution is not simply to affirm that local wisdom matters, but to show how local communicative practices can mediate the realization of legal rights while also revealing the institutional and technological conditions that remain necessary for those rights to become sustainable and independently accessible.

From a socio-legal perspective, LANTERA demonstrates that the practical realization of legal protection for older persons depends not only on the existence of formal rights but also on how those rights are mediated through everyday service practices. In this respect, culturally familiar communication, including the use of the Sundanese language, storytelling, gestures, attentive listening, patience, and respectful interpersonal interaction, served as practical mechanisms through which older users could experience accessibility, participation, and dignity. The assisted and hybrid character of the model also helped maintain access for participants whose independent digital capability remained limited, while community cadres and family members acted as intermediaries between formal service arrangements and older service users. Such mediation is particularly important where digital capability is uneven and older persons rely on social resources to navigate technologically mediated services (Laznik et al., 2026; Petrovčič et al., 2024). The findings therefore suggest that local wisdom should not be understood merely as a cultural addition to service delivery, but as a mechanism through which abstract legal principles can be translated into socially intelligible and accessible practices. Local wisdom does not replace legal protection; it mediates its practical realization.

At the same time, the features that make LANTERA accessible also reveal potential sources of vulnerability. Assisted access may preserve immediate service inclusion, but it can become a form of dependency when independent options are not developed alongside family- or cadre-mediated access. Research on informal digital support and use-by-proxy similarly shows that reliance on relatives, friends, or other intermediaries may facilitate access while simultaneously reproducing unequal dependence on the availability and capability of those helpers (Hänninen & Taipale, 2025; Petrovčič et al., 2024). In the LANTERA context, this risk is compounded when service continuity, respectful treatment, or access to information depends substantially on particular facilitators rather than on stable institutional

arrangements. A further concern is that a premature shift toward digital-first service delivery could intensify exclusion among older persons with limited digital skills, as digitalization may reinforce existing inequalities when accessible non-digital pathways are weakened or removed (Badr et al., 2024; Buchert et al., 2023). Moreover, favourable responses to prototype features should not be equated with demonstrated usability or sustained independent use, because acceptance and usability are analytically distinct and may diverge in real-world settings (Fiorini et al., 2026). What makes LANTERA accessible can therefore also become a source of vulnerability if accessibility remains dependent on particular individuals rather than institutionalized service arrangements.

The policy implications of these findings call for differentiated responses that correspond to the source and character of each identified gap. The implementation gap in complaint handling can be addressed through a clearly communicated complaint procedure, service standards, and mechanisms for recording and responding to user concerns. Institutional limitations affecting service continuity require clearer organizational responsibilities, coordination arrangements, and continuity mechanisms that reduce dependence on particular personnel or schedules. Service-design limitations arising from reliance on family members and community cadres require a formal assisted-service protocol while also developing options that enable older persons to access services more independently where feasible. The developmental status of the digital component requires further usability testing with older users before wider implementation, while assisted and non-digital service pathways should remain available rather than being replaced by a digital-only model. By contrast, the possible gap in regulatory specificity requires a systematic normative and regulatory review to determine whether existing national, provincial, and regency-level instruments already provide an adequate operational basis for culturally responsive and hybrid elderly services. Additional regulation should therefore not be treated as the automatic response to every weakness identified in LANTERA. A Regent Regulation (Peraturan Bupati) should be considered only if such a review demonstrates that existing legal and administrative instruments are insufficient to establish the necessary operational authority, institutional responsibilities, coordination mechanisms, or service standards.

CONCLUSION

This study concludes that the socio-legal implementation of elderly protection through LANTERA is characterized by uneven translation of formal legal principles into everyday service practice. Accessibility, participation, dignity, and welfare support were most clearly realized through community-based assistance, culturally familiar verbal and nonverbal communication, and respectful interpersonal interaction. The use of Sundanese, conversational explanations, storytelling, gestures, attentive listening, patience, and facilitator support helped make services more understandable, socially familiar, and responsive to older persons' needs. However, assisted accessibility did not amount to fully autonomous accessibility. Complaint handling remained unclear; service continuity continued to depend in part on personnel and scheduling arrangements; family and cadre assistance had not been fully institutionalized; and independent digital access remained limited. These weaknesses arose from different sources rather than from a single deficiency in the legal framework. Accordingly, additional regulation should not be treated as the automatic solution; a local implementing regulation, including a Regent Regulation (Peraturan Bupati), is warranted only where systematic normative review demonstrates that existing legal and administrative instruments provide an insufficient operational basis for culturally responsive and hybrid elderly services.

The principal scientific contribution of this study lies in integrating legal implementation, culturally grounded communication, and digital inclusion within a single socio-legal explanation of elderly service delivery. The study demonstrates that local wisdom is not merely a cultural attribute added to public services but can function as a practical mechanism through which formal legal rights become intelligible and experientially meaningful in everyday service encounters. At the same time, it distinguishes relational and assisted realization of rights from their institutionalized and independently accessible realization, showing that culturally accommodative communication cannot substitute for complaint procedures, organizational continuity, effective service design, or accessible technological systems. Methodologically, the socio-legal compliance matrix and differentiated classification of implementation, institutional, service-design, developmental, and possible regulatory-specificity gaps offer an analytical approach for identifying not only whether a law implementation gap exists, but also where that gap arises and what type of response it requires.

This study has several limitations that should be considered when interpreting its findings. First, the quantitative analysis is descriptive and does not include inferential statistical testing; therefore, observed relationships, such as those between digital literacy and the need for assistance, should not be interpreted as statistically established associations or causal effects. Second, several questionnaire items produced identical responses across all 113 participants, resulting in zero variance ($SD = 0.000$). Verification of the original SPSS dataset confirmed that these values were not data-entry errors but reflected a ceiling-effect pattern; however, the absence of variation limits the usefulness of these items for future comparative or correlational analyses. Third, the digital component of LANTERA remains at the prototype stage, meaning that its usability findings should be interpreted as perceptions of proposed or prototype features rather than evidence of the performance of a fully operational digital service. Finally, the study was conducted within the specific socio-cultural context of Sundanese communities in Bandung Regency, and its findings should therefore not be generalized beyond comparable cultural and institutional settings without further empirical testing.

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