

Assessment of Functional Communication in a Healthy-Aging Older Adult

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ABSTRACT

This case study investigates the functional communication capabilities of an 82-year-old individual with a university-level education in teacher training and a 40-year career in education. Currently retired, the participant maintains an active lifestyle across the physical, cognitive, social, and spiritual domains. The patient had a history of hypertension and a family history of metabolic and cardiovascular diseases. The assessment adhered to current national and international ethical guidelines, employing interviews and validated instruments, such as the Communication Assessment Form for Older Adults and Salazar's protocol (2022), grounded in a biopsychosocial perspective. The findings revealed a well-preserved functional communication profile with intact basic and higher-level communication skills. The subject demonstrated effective verbal interaction, appropriately adapting to context and interlocutor, utilizing relevant linguistic and nonverbal resources, and employing compensatory strategies to address mild hearing and technological challenges. Overall, performance reflects healthy, autonomous, and socially integrated communication skills in later life.

Keywords: functional communication, older adult, healthy aging

1. INTRODUCTION

Healthy aging is a process that fosters and sustains functional capacity, thereby facilitating active societal participation and promoting physical and emotional well-being within the familial context of older adults (WHO Health Organization, 2024). Within this framework, the concept of functional communication is integrated from the perspective of the biopsychosocial model, grounded in the activity and participation components delineated by the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001), as a fundamental support for health and well-being (Olivares & Tobar, 2021). Functional communication seeks to address an individual's communication needs through any expressive modality or form, such as speech, gestures, drawings, or writing, irrespective of adherence to the grammatical conventions of the spoken language. This approach optimizes an individual's communicative abilities, particularly in its transactional function, which emphasizes the exchange of information across diverse contexts and with various interlocutors in everyday life (Brown & Yule, 1983; Simmons & Damico, 1995, as cited in Olivares & Tobar, 2021). Consequently, communication in older adults should be approached from a holistic perspective, considering body functions and structures, communicative activities, and social participation as essential components to ensure a good quality of life during healthy aging (Salazar, 2022; WHO 2023).

In the context of aging, cognitive-linguistic changes are a natural aspect of the aging process, influenced by factors such as health status, educational attainment, cognitive engagement, and various social and environmental conditions (Chen et al., 2021). At the communicative level, older adults may experience a reduction in social interactions, changes in voice quality, diminished verbal fluency, and declines in vocabulary, grammatical judgment, repetition ability, comprehension of

complex sentences, and word retrieval (Sosa, 2023). Additionally, aging impacts specific linguistic tasks related to lexical, syntactic, and discourse processing due to alterations in the central executive system, affecting processes such as attention, working memory, and information processing (González and Pérez, 2019).

Therefore, the evaluation of functional communication in older adults necessitates detailed observation, employing standardized instruments and/or qualitative methods to assess their capacity to effectively use language for expressing needs, understanding pertinent messages, and adapting to various interlocutors and contexts without relying on formal or structured language (ASHA, 2020). This evaluation also considers pragmatic, cognitive, and social skills, which are crucial for establishing meaningful interactions and fostering active participation (Machado et al. 2018).

The significance of establishing an assessment framework within the practice of speech-language pathology is underscored, particularly for individuals experiencing healthy aging. This approach aims to identify the elements of functional communication and develop a comprehensive communicative diagnostic profile to preserve and enhance the linguistic capabilities of older adults.

2. MATERIALS AND METHODS

2.1 Participant

The subject, referred to as ARAD, was an 82-year-old male with a university-level education, specifically a teacher training diploma. He has an extensive teaching career spanning 40 years and is now retired from it. ARAD is a father of three and engages in various leisure activities, including playing card games and chess, attending church services on Sundays, and participating in activities such as reading, writing, coloring mandalas, and solving word searches and crossword puzzles. He maintains a routine of walking for 45 minutes, five days per week, and adheres to a balanced diet that is low in salt, sugar, and carbohydrates, due to his risk factors for hypertension. Additionally, he had a family history of type 2 diabetes and cardiovascular disease on his paternal side.

2.2 Evaluation Techniques and Instruments

In alignment with the legal principles governing research processes and to ensure the voluntary participation of study participants, interviews were conducted with the adult child, serving as the responsible family member, and the older adult to establish the characteristics of the case study. Informed consent was obtained voluntarily, adhering to the ethical guidelines for research involving human subjects in Colombia, as stipulated in Resolution 008430 of the Ministry of Health (1993), and in accordance with the international guidelines of the Declaration of Helsinki (2013). The evaluation process was guided by the Functional Capacity Assessment Guide for Older Adults (Domínguez and García, 2014, as cited in the INAPAM, 2023). Additionally, the guidelines established by the American Speech-Language-Hearing Association (ASHA) for the assessment and treatment of cognitive and communication disorders were considered in this study. These guidelines address referral and collaboration approaches between speech-language pathology and clinical neuropsychology (ASHA, 2002) and establish criteria for assessing the ability to effectively receive and transmit messages, irrespective of the mode of communication, in naturalistic contexts. Initially, medical history was obtained using the Communication Assessment Form for Older Adults (Contreras et al., 2017), which inquires about personal, family, clinical, psychosocial, and communicative backgrounds, as well as health status, activities of daily living, and communication skills. Subsequently, the functional communication assessment protocol for older adults proposed by Salazar (2022) was applied. This protocol includes three nationally validated screening tools that analyze the communication skills of healthy older adults, focusing on communication functions and structures, communicative activities, and socio-communicative participation. The results were

interpreted according to the scoring guidelines provided in the assessment instruments, allowing for the determination of the performance level and the creation of a summary of scores that describes the functional communication profile of older adults.

3. RESULTS

Table 1 presents the baseline level of normalcy in the fundamental communicative characteristics of older adults, with a total score of 11 out of 12 possible points, corresponding to a performance level of 92%. This finding indicates a preserved functional, intentional, and emotionally meaningful capacity to interact with interlocutors across different communicative activities.

In greeting situations, the individual communicates at a moderate pace, employs conventional or ritualized expressions, uses an appropriate emotional tone, integrates suitable nonverbal cues, and adjusts behavior according to the interlocutor and communicative context. When providing information, the individual predominantly relies on narrative language, though with variable coherence, a conservative vocabulary, and slightly reduced fluency. Gestures and facial expressions are used to complement verbal output.

When recounting everyday events, narratives follow a basic logical sequence, incorporating temporal and deictic markers, concrete and descriptive language, and a personal style with fluctuations in coherence. Frequent pauses were observed during speech production. In conversations about familiar topics, emotionally meaningful memories and experiences are evoked, producing expressive and motivated discourse. The narrative style remains conversational and spontaneous, characterized by simple, fluent, and somewhat repetitive language, supported by nonverbal resources to sustain topic continuity.

When addressing unfamiliar topics, greater cognitive effort is evident, reflected in requests for clarification of technical vocabulary and a more receptive attitude throughout the exchange. In expressing opinions, the individual employs evaluative language with an argumentative tone, favors familiar topics, demonstrates adequate cognitive flexibility, and adapts pragmatically to the interlocutor and communicative setting.

When posing questions, the communicative intention to clarify instructions, confirm tasks, or resolve doubts is evident. The individual employs direct and functional language, accompanied by emotional modulation and an interrogative tone, as well as linguistic markers aimed at eliciting information. When following basic instructions, comprehension is accurate when commands are clearly contextualized and visually supported. A slight reduction in processing speed was noted, particularly with more complex instructions, leading to requests for clarification or confirmation. Finally, when issuing orders, the individual uses imperative language that conveys authority, adapting the content to the communicative context and the nature of the relationship with the interlocutor.

Table 1. Summary of the assessment outcomes regarding basic communication abilities in older adults

Basic communicative acts	Communication characteristics of older adults	PD/PN
Greeting	It serves the functions of politeness, recognition, social connection, and a sense of belonging.	1 / 1
Giving information	It conveys information using both verbal and non-verbal communication, with coherence, clarity, and a clear	3 / 4

	communicative purpose, covering topics such as personal matters, family relationships, health status, and spatial and temporal orientation.	
Narrating events	It recounts personal experiences, events, or happenings that occurred recently, usually on the same day.	1 / 1
Discussing familiar topics	Exchange information about topics that are familiar, meaningful, and relevant to the person, such as family, home, health, daily routines, and past experiences.	1 / 1
Discussing unfamiliar topics	Participate in a discussion about topics that are outside of your everyday experience. (global warming).	1 / 1
Expressing opinions	Express your personal opinion, belief, or assessment on a current news story orally, in a clear and coherent manner.	1 / 1
Asking questions	Clarify any questions or confirm information related to the evaluation process.	1 / 1
Following basic instructions	Understands simple instructions related to assessment tasks.	1 / 1
Giving orders/instructions	It gives clear verbal instructions with a direct intent, aimed at having another person perform a specific action.	1 / 1
Total score		11/ 12

Table 2 highlights the preservation of higher-order communicative skills, supported by a total score of 6 out of 7 possible points, representing an 86% performance level. This outcome suggests maintained quality of interaction and preservation of meaningful social connections, expressed through functional and socially appropriate language.

When explaining, the individual organizes discourse sequentially and draws on personal experiences, employing clear language and validation strategies to ensure listener comprehension. In telephone use, limitations in handling applications and mild technology-related anxiety are observed, partially affecting fluency. When providing justification, arguments are articulated through structured, persuasive language, employing logical connectors, references to personal values, and maintaining thematic coherence based on past experiences.

In expressing emotions, emotionally charged language is used, with frequent evocation of significant family experiences. During reading, silent reading skills are preserved, although slight variations in automatic fluency emerge due to reduced processing speed. Nonetheless, reading comprehension remains functional. In writing, grammatical structure is maintained, though handwriting shows mild motor-related changes, reducing speed. However, communicative functionality is preserved, supported by educational background. When following complex instructions, compensatory strategies such as repetition and message confirmation are employed, with reliance on clarity of instructions to achieve partial or segmented comprehension.

Table 2. Summary of the assessment outcomes regarding higher-order communicative activities in older adults

Higher-level communicative acts	Communication characteristics of older adults	PD/PN
Explain	It organizes information, transmits knowledge and experiences.	1 / 1
Use the phone	Limited functionality for smartphone operation.	0 / 1
Provide justification	To justify an opinion, decision, or idea by providing reasons.	1 / 1

Express emotions	It expresses feelings, emotional states, or internal reactions through both verbal and non-verbal language.	1 / 1
Reading	It involves decoding written symbols to create meaning, understand ideas, and access information.	1 / 1
Writing	It encodes language using graphic symbols to express ideas, feelings, information, or instructions.	1 / 1
Following complex instructions	To execute a series of sequential instructions, whether abstract or involving multiple steps.	1 / 1
Total score		6 / 7

Table 3 describes the maintenance of a diverse communication network, encompassing both close family relationships and sporadic interactions with non-family members. The spousal relationship is particularly close, with multiple daily interactions lasting over 60 minutes. These exchanges fulfill instrumental, personal, and cognitive functions, reflecting a comprehensive and meaningful bond. Similarly, communication with children occurs daily, typically lasting between 30 and 60 minutes, also addressing instrumental, personal, and cognitive needs, and demonstrating a consistent supportive relationship.

Contact with other family members occurs weekly, with conversations of comparable duration, primarily oriented toward emotional and cognitive functions that sustain affective ties. Interactions with non-family members occur sporadically, lasting approximately 30 to 60 minutes, and are primarily focused on cognitive stimulation. Despite variability in frequency and type of interactions, the older adult reports high levels of satisfaction across all communication relationships.

Table 3. Summary of the assessment outcomes regarding the communicative–social profile of the older adult

Relationship	Frequency	Relationship quality		
		Duration	Conversation Functions	Satisfaction
Spouse	Several times daily	> 60 min	Instrumental, personal, cognitive	Satisfied
Children	Daily	30-60 min	Instrumental, personal, cognitive	Satisfied
Other family members	Weekly	30-60 min	Emotional & cognitive	Satisfied
Others outside family	Sporadic	30-60 min	Cognitive stimulation	Satisfied

Table 4 indicates generally preserved communicative performance, with a total score of 19 out of 20, representing 95% performance. This outcome demonstrates adequate functioning across most communicative domains.

Regarding speech and articulation, speech was clear, suggesting efficient articulatory control (2/2). In prosody, the individual expressed emotions through suprasegmental aspects of speech, such as intonation and rhythm, contributing to expressiveness (1/1). Voice intensity and projection were adequate, allowing effective interaction without signs of vocal fatigue or deterioration in vocal quality (2/2).

For auditory comprehension, although the individual participated actively in conversations, compensatory strategies such as requesting repetition were frequently used, suggesting potential

perceptual challenges (1/2). From a morphosyntactic perspective, the individual produced complex sentences, with a preference for simpler, more direct structures, consistent with typical aging (4/4).

At the semantic level, some delays in word retrieval were noted, especially for proper nouns or infrequent terms, but lexical access remained functional and contextually appropriate (3/3). In the pragmatic component, the individual actively participated in interactions, respected conversational turns, adhered to social norms, and maintained coherence, achieving the maximum score (6/6).

Table 4. Summary of the assessment outcomes regarding communicative functions in older adults

Communication functions	Communication characteristics of older adults	PD/PN
Speech and articulation	His articulation is clear and precise.	2 /2
Prosody	He demonstrates expressiveness in his emotions by using suprasegmental aspects of speech.	1 /1
Voice	He uses a voice with appropriate intensity and projection that allows for effective communication with his listener.	2 /2
Hearing	It uses compensatory mechanisms to request information that assumes certain impairments in auditory perception.	1 /2
Morphosyntax (Discourse)	It tends to produce complex sentences, but with a preference for using simpler and more direct grammatical structures.	4 /4
Semantics (access to the lexicon)	It shows some delay in retrieving words, especially proper names or less common terms.	3 /3
Pragmatics	Participates in social interactions, taking turns and maintaining conversational flow.	6 /6
Total score		19 /20

4. DISCUSSION

The evaluation of communicative characteristics in older adults was conducted using a biopsychosocial assessment protocol that integrated communicative functions and structures, daily communication-related activities, and social participation (González et al., 2019). This approach facilitated the development of a communicative profile encompassing basic and higher-level acts, social interactions, and communicative functions (Salazar et al., 2022).

The assessment of basic communicative abilities demonstrated overall preserved functioning, reflecting a purposeful and emotionally meaningful use of the skills required for verbal interaction. Competence was evident in essential communicative acts such as greeting, providing information, narrating, expressing opinions, asking questions, following instructions, and giving orders, where verbal and nonverbal resources were employed in a complementary and effective manner. Furthermore, the expressive and motivated style—adapted to both the context and interlocutor and characterized by concrete and narrative language—suggests that the older adult maintains sufficient communicative capacity to support interactive autonomy and active participation in social settings.

These findings are consistent with prior studies reporting that basic communicative skills in aging remain functional when supported by the family environment and responsive interlocutors (Lomas & Lizán, 2022). From this perspective, communication in older adults should be approached functionally and contextually, rather than exclusively from a structural viewpoint (Palmer et al., 2019). Communicative ability is further enriched by life experiences, sociocultural context, and

personal history, which lend depth and emotional resonance to discourse, and is modulated by cognitive, affective, and environmental factors (Salazar, 2023).

Regarding higher-order communicative skills, significant preservation was observed in the ability to explain ideas sequentially, supported by personal experiences and the use of validation strategies to ensure comprehension. Structured discourse was achieved through logical connectors, thematic coherence, and references to personal values. Expressive language was particularly evident when recalling family experiences, while functional reading and writing skills were also maintained. Although minor limitations were noted in the use of smartphones and a slight reduction in processing speed when following complex instructions, these difficulties were compensated for by adaptive strategies such as repetition and message confirmation. This pattern aligns with findings by Bambini et al. (2020), who emphasize that pragmatic skills enable older adults to adapt to different contexts, thereby sustaining social networks and enhancing communicative health. Bernhold and Gilis (2020) also stress the contribution of social interaction to overall well-being, while Krein et al. (2019) highlight the strong relationship between linguistic dimensions—expression, comprehension, reading, writing, and repetition—and cognitive functioning in older adults. In addition, Kim and Fadem (2018) and Martín (2017) note the value of integrating technological tools to support communication, need fulfillment, and social participation in later life.

The participant's communicative-social profile revealed a diverse and functional communication network, characterized by frequent and meaningful exchanges with the spouse and children, supplemented by more sporadic contacts with other relatives and acquaintances. These interactions fulfilled instrumental, emotional, personal, and cognitive functions, typically lasting between 30 and 60 minutes. Despite variability in frequency, the participant reported high satisfaction with all communicative relationships, reflecting active social participation and positive relational quality of life. These results are consistent with reports that communication in older adults is reinforced by the availability and proximity of social support, which strengthens autonomy and emotional well-being (Lastre, 2019).

Importantly, in the context of chronic conditions such as diabetes, preserved communicative skills are essential for maintaining treatment adherence, self-management, and effective interaction with healthcare providers. Functional communication supports the ability to understand medical instructions, express health concerns, and engage in decision-making processes regarding disease management. In addition, robust social networks and emotionally meaningful communication have been shown to mitigate the psychosocial burden of chronic illness, reduce perceived stress, and promote resilience. Therefore, the preservation of communicative competence in older adults is not only relevant for sustaining social participation and quality of life, but also plays a critical role in maintaining autonomy and optimizing health outcomes in individuals living with diabetes and other chronic diseases.

5. CONCLUSIONS

The evaluated older adult demonstrates a functionally preserved communication profile, with intact performance across both basic and higher-order communicative functions. Communicative competence is reflected in effective verbal interactions, appropriate integration of linguistic and non-verbal resources, and active participation in meaningful social exchanges. Although mild hearing and technological limitations were identified, these challenges were effectively compensated through adaptive strategies, thereby supporting autonomy and maintaining functional communicative health.

These findings highlight the importance of assessing communication in older adults from a biopsychosocial perspective, recognizing its central role in promoting autonomy, emotional well-being, and social participation. Moreover, the preservation of expressive, contextualized, and emotionally meaningful communication aligns with patterns of healthy cognitive aging and suggests protective effects of family and social support.

In practical terms, this case illustrates that older adults can preserve effective communicative competence despite mild sensory or technological limitations, provided they rely on adaptive strategies and social support. Communication assessment should therefore be integrated into routine geriatric and multidisciplinary care, as it represents a key determinant of autonomy, emotional well-being, and healthy cognitive aging.

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