



Humanization in long-term care institution for elderly people: application of educational technology aimed at workers^a

Humanização em instituição de longa permanência para idosos: aplicação de tecnologia educativa voltada para trabalhadores

Humanización en instituciones de larga estancia para ancianos duración para personas mayores: aplicación de tecnología educativa dirigida a trabajadores

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ABSTRACT

Objective: to analyze the application of an educational technology aimed at workers of a Long-Term Care Institution for Elderly People, based on Nonviolent Communication. **Method:** descriptive qualitative study. A bingo-style game was applied with 21 statements containing situations that workers frequently encounter, and that can trigger reactions. The game was administered to nine workers from four Long-Term Care Institution for Elderly People in a medium-sized city in the interior of São Paulo state in two workshops in December 2024 and February 2025. The study was submitted to the Research Ethics Committee with Human Beings. Data were analyzed using Thematic Content Analysis. **Results:** the game's application enabled discussions related to the behavior of older adults, the work process, and the conditions of the workers themselves. It also allowed for adaptation of the statements, proposing a version with 17 statements that more directly reflect daily events in a Long-Term Care Institution for Elderly People. **Final considerations and implications for practice:** the development and application of the educational game "Humanize LTCI" demonstrated its potential as an innovative strategy to promote reflections on the humanization of care in this assistance context.

Keywords: Communication; Gamification; Humanization of Assistance; Long-Term Care Institution for Elderly People; Educational Technology.

RESUMO

Objetivo: analisar a aplicação de uma tecnologia educativa voltada aos trabalhadores de uma Instituição de Longa Permanência para Idosos, pautada na Comunicação Não Violenta. **Método:** estudo qualitativo descritivo, no qual se aplicou um jogo do tipo bingo, com 21 frases contendo situações às quais os trabalhadores frequentemente são confrontados e podem desencadear reações. O jogo foi aplicado a nove trabalhadores de quatro Instituição de Longa Permanência para Idosos de um município de médio porte do interior paulista, em duas oficinas, realizadas em dezembro de 2024 e fevereiro de 2025. O estudo foi submetido ao Comitê de Ética em Pesquisa com Seres Humanos. Os dados foram submetidos à técnica de Análise de Conteúdo Temática. **Resultados:** a aplicação do jogo suscitou discussões relacionadas ao comportamento dos idosos, ao processo de trabalho e às condições de trabalho do trabalhador, além de possibilitar a adequação das frases, sendo proposta uma versão com 17 frases que traduzem mais diretamente acontecimentos do cotidiano da Instituição de Longa Permanência para Idosos. **Considerações finais e implicações para a prática:** o desenvolvimento e a aplicação do jogo educativo "Humaniza ILPI" evidenciou o seu potencial como estratégia inovadora para fomentar reflexões sobre a humanização da assistência nesse contexto assistencial.

Palavras-chave: Comunicação; Gamificação; Humanização da Assistência; Instituição de Longa Permanência para Idosos; Tecnologia Educacional.

RESUMEN

Objetivo: analizar la aplicación de una tecnología educativa para trabajadores de Instituciones de Larga Estancia para Ancianos basada en la Comunicación No Violenta (CNV). **Método:** estudio cualitativo descriptivo. Se aplico un juego tipo bingo con 21 oraciones que contenían situaciones que los trabajadores enfrentan frecuentemente y que pueden desencadenar reacciones. El juego se administró a nueve trabajadores de cuatro Instituciones de Larga Estancia para Ancianos de una ciudad de tamaño mediano en el interior del estado de São Paulo en dos talleres en diciembre de 2024 y febrero de 2025. El estudio fue sometido al Comité de Ética para Investigación con Sujetos Humanos. Los datos se analizaron mediante análisis de contenido temático. **Resultados:** la aplicación del juego permitió discusiones relacionadas con el comportamiento de los adultos mayores, el proceso de trabajo y las propias condiciones de los trabajadores. También permitió la adaptación de las oraciones, proponiendo una versión con 17 oraciones que reflejan más directamente los eventos cotidianos en las Instituciones de Larga Estancia para Ancianos. **Consideraciones finales e implicaciones para la práctica:** el desarrollo y la aplicación del juego educativo Humaniza ILEA demostró su potencial como una estrategia innovadora para fomentar reflexiones sobre las prácticas de cuidado en este entorno.

Palabras clave: Comunicación; Gamificación; Humanización de la Atención; Hogares para Anciano; Tecnología Educacional.

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INTRODUCTION

Population aging worldwide has been progressively increasing in recent years. In Brazil, by 2060, older adults are expected to represent 25.5% of the population, leading to the emergence of a new epidemiological profile, with a predominance of Noncommunicable Chronic Diseases (NCDs), as well as increased dependence for activities of daily living.^{1,2}

Changes resulting from the aging process make older adults more vulnerable, as they experience reduced functional capacities, along with interpersonal conflicts and socioeconomic problems that may compromise living and health conditions.³ In this context, the need for care increases, requiring preparation to meet these demands.⁴

In caring for older adults, the family often represents the main source of support; however, with changes in family structure, such as a reduction in the number of children, an increase in divorces, and geographic distancing, older adults may begin to live alone and lack the necessary support when they become dependent on care. Moreover, intergenerational conflicts or compromised health conditions of family members are common, such as living with children with mental disorders or individuals who use illicit drugs and alcohol.⁵

In this context, a resource available for the care of older adults is the Long-Term Care Facility for Older Adults (LTCI), defined as establishments that provide comprehensive institutional care for individuals aged 60 years or older who are unable to remain at home or with family members, whether dependent or independent in activities of daily living. The LTCI may be governmental or private.⁶

Regardless of the modality, LTCI must offer physical structures with adequate accessibility, habitability, usability of spaces, and personalization of the environment, promoting safety, autonomy, and interaction among residents, as well as fostering a sense of belonging.⁷

However, evaluations of LTCI in Brazil indicate that most of these establishments require restructuring in terms of caregiver-to-resident ratios, team composition, access to services, and the provision of health promotion actions.⁸ The growing demand for these LTCI in the face of limited resources has resulted in significant deficiencies in the quality of care provided, as institutional factors are closely linked to team capacity and care policies. Therefore, strategies grounded in sensitivity and person-centered care are advocated to meet the multifaceted needs of older adults living in these LTCI.⁸

Additionally, it has been identified that professionals working in LTCI often reproduce a fragmented and mechanical work process, with limited communication and continuity of care across different shifts, offering few opportunities for older adults to remain active participants in decision-making. Managers, in turn, frequently consider both survival conditions (such as food and hygiene) and humanization practices as indicators of care quality.⁹

It is noteworthy that when older adults begin to reside in LTCI, they must cope with significant life changes, which often

occur against their will and due to abandonment. Changes in daily routines, including meals, hygiene care, and living with unfamiliar people, can represent major sources of stress. Thus, they require welcoming environments and humanized care. However, older adults living in these facilities still face obstacles in ensuring humanized and comprehensive care.¹⁰

Unlike the Brazilian context, Austria presents, in general, high quality of life in residential care homes for older adults, in some aspects surpassing that of older adults living at home with similar social and health characteristics. In this country, in addition to financial support according to the degree of dependence, with priority given to home care, the wishes of older adults regarding institutionalization are respected.¹¹ Support for older adults and, consequently, better living conditions are also observed in countries such as Finland, Norway, Sweden, and Denmark, due to high investments in care services.¹²

Lack of investment contributes to older adults living in Brazilian LTCI experiencing low levels of independence, freedom, and autonomy, as well as family and social abandonment. According to the authors, these data indicate the need for immediate actions aimed at improving older adults' quality of life.¹³ Given these findings and observations within LTCI, the development of humanized practices is considered relevant, which may be achieved through training of professionals working in these services, since professional education does not always provide sufficient preparation for this purpose.

For professional training grounded in the principles of humanized care, the nonviolent communication framework may support the development of dynamic and proactive strategies. Nonviolent Communication (NVC) can be applied across contexts and is grounded in communication and language skills that foster cooperation, empathy, attention, and respect.¹⁴

NVC is supported by the pillars of compassion, requiring a reformulation of how individuals listen and express themselves, aiming to develop assertive communication skills and replace verbal attacks, defenses, and judgments. It enables productive, meaningful, and beneficial relationships. It proposes four aspects to be considered in communication: (1) observing facts without judgment; (2) identifying feelings about what is observed; (3) recognizing needs related to what is observed; and (4) making specific and concrete requests.¹⁵

Given the above and considering the need to make the learning process an interactive and engaging experience, gamification principles may be incorporated as a strategy to overcome challenges in teaching, especially in complex situations.

Based on this rationale, the study was guided by the following question: what possibilities for reflection among workers in LTCI regarding NVC can emerge from the development of an educational technology?

This study's objective was to analyze the application of an educational technology aimed at workers in LTCI, based on NVC.

METHOD

This is a qualitative, descriptive study that portrays the application of an educational technology aimed at workers in LTCI. The study was developed by a research group composed of undergraduate medical students, master's and doctoral students, and PhD researchers who work with gamification focused on violence against older adults, based on literature from the fields of Geriatrics and Gerontology, and on the principles of NVC.

The application was carried out with workers from four LTCI located in a municipality in the interior of the state of São Paulo, Brazil, with a population of 104,642 inhabitants, including 19,543 older adults, corresponding to approximately 19% of the total population.

For anonymity purposes, the LTCI included in this study were designated as "A", "B", "C", and "D". Institutions "A", "B", and "C" are civil associations of private philanthropic legal nature, non-profit. As philanthropic entities, they receive municipal and state funding, as well as support from the local community. Admission to these institutions occurs by judicial determination, justified by family abandonment, spontaneous demand, or intervention of the Conselho Municipal do Idoso. These institutions have, respectively, 47, 35, and 30 workers in administrative roles, general services, direct care, and nutrition and dietetics services, and 76, 44, and 47 residents.

Institution "D" is a franchised company of private legal nature that provides services for residents requiring specialized care, including residential care, temporary stay, and day care. It is registered with the Conselho Municipal e Estadual do Idoso. The planned capacity is 40 residents; however, it currently has 23. A total of 35 workers perform professional activities in this institution, across different roles.

For the educational technology development, gamification principles were followed, such as the inclusion of playful elements and the adoption of a systematic approach to the knowledge to be conveyed, ensuring effective interaction between content and technological resources, always considering the target population.^{16,17}

The educational technology developed was a bingo-type game entitled "*Humaniza LTCI*". For the game's operation, statements were created based on everyday situations in LTCI that may trigger negative or positive emotional reactions and affect the relationship between the older adult and the care professional. The statements were numbered, and the drawing of numbers was conducted using the ClickTeam platform and projected via Datashow, allowing visualization by participants. Each player received a conventional bingo card composed of a grid with nine randomly combined numbers within the range corresponding to the number of statements (Figure 1). If the player had the number corresponding to the drawn statement, they marked an "X" on the card. Before reading each statement, the game facilitator asked: what is your reaction/response when? This dynamic promoted moments of reflection and exchange of information about the situation, grounded in NVC. Once the card was completed, the participant received a small gift offered by the organizers.

From this perspective, 21 statements were developed. The game application, which also served to adapt the statements to everyday occurrences in LTCI, took place in two workshops, each lasting approximately two hours. The sessions were conducted in the amphitheater of the main researcher's workplace, as it provided a comfortable environment, free from interference, with audiovisual resources and a central location facilitating participant access. All workers directly involved with older adults and who were not on duty at the time of the workshop were invited, excluding those with less than six months of experience at the facility, constituting a convenience sample. However, although all were invited, workers from the private institution did not attend. Transportation support was offered; however, participants stated it was unnecessary.

Of the eight and ten workers who confirmed participation in workshops 1 and 2 (W1 and W2), respectively, four attended the first workshop, and five attended the second. Participants were informed that, in addition to playing, they could suggest modifications to the statements. As each statement was presented, participants' reactions within the practice context were discussed, generating reflections on the topic. The analysis of each statement lasted approximately five minutes.

The workshops were facilitated by a PhD nurse and a doctoral student with experience in group work, along with a master's-level nurse, and took place in December 2024 and February 2025. The facilitation aimed to encourage participation and allow participants to express their experiences and opinions. After the game, a dialogic presentation was conducted about NVC principles and how they can contribute to addressing daily challenges faced by workers in LTCI.



Figure 1. Example of a bingo-type "*Humanize LTCI*" game card. Assis (SP), Brazil, 2025.

Data obtained from discussions during the game application were audio-recorded and fully transcribed. Thematic analysis was conducted through the following stages: familiarization with the data through repeated readings to achieve depth and breadth of understanding; recording key ideas to develop initial codes; grouping different codes into potential themes, culminating in the consolidation of themes and subthemes; revisiting and refining themes based on internal homogeneity and external heterogeneity criteria. Subsequently, the themes were defined and named.¹⁸

Participants received appropriate explanations and signed the Free and Informed Consent Term (FICT). In addition to maintaining the anonymity of the LTCI, participants' identities were also preserved by identifying them with the letter "W", indicating participation in Workshop 1 or Workshop 2, followed by the letter "P" and a number. The study is part of a larger project and was approved by the Research Ethics Committee (REC) with human beings of the proposing institution, according to opinion no. 6.767.329 and CAAE 53517421.5.0000.5413.

RESULTS

Nine workers from LTCI participated in the workshops for the "Humaniza LTCI" application, all of them female, working as nurses, psychologists, Nursing assistants, and caregivers, with a mean age of 35 years and length of professional experience ranging from one to 10 years.

The discussions arising from the developed statements allowed reflections related to three themes, which were associated with older adults' behaviors that may trigger reactions/responses interfering with the older adult-worker relationship and, consequently, with the quality of care; with the work process; and with the workers' own working conditions. Moreover, based on consensus between participants and researchers, modifications were made to the initially proposed statements, so that the game became closer to the reality of the target population, as shown in Chart 1.

Chart 1. Distribution of the initial questions and modifications after the bingo-type game application, "Humaniza LTCI". São Paulo, Brazil, 2025.

Initial questions	Modifications
1. What is your reaction when an older adult with dementia says that one of their belongings was stolen?	1. Maintained
2. What is your reaction or response when an older adult hits or pinches you?	2. Maintained
3. What is your reaction when an older adult uses very harsh words?	3. Maintained
4. What is your reaction when the older adult complains about everything, and nothing seems good?	4. Maintained
5. What is your reaction when the older adult is affectionate and grateful for everything that is done?	5. Maintained
6. What is your reaction when you notice that the older adult is always in a bad mood?	6. Removed
7. What is your reaction when you notice that the older adult justifies and protects their children's attitudes?	7. Removed
8. What is your reaction when the older adult requires a lot of attention?	8. Maintained
9. What is your reaction and response when the older adult is repetitive?	9. Removed
10. What is your reaction and response when you feel overloaded?	10. Maintained
11. What is your reaction when you notice that your coworker is not collaborating?	11. Maintained
12. What is your reaction when there is disagreement among coworkers?	12. Maintained
13. What is your reaction when you notice that an older adult is isolated?	13. Maintained
14. What is your reaction when you receive criticism that devalues your work?	14. Maintained
15. What is your reaction when the older adult has difficulty communicating?	15. Replaced
16. What is your reaction when the older adult makes a mess right after you have cleaned?	16. Maintained
17. What is your reaction when you notice that a coworker becomes irritated when an older adult is aggressive toward them?	17. Maintained
18. What is your reaction and response when one older adult is rude and argues with another?	18. Maintained
19. What is your reaction and response when you notice that the older adult is calmer?	19. Maintained
20. What is your reaction and response when you feel stressed?	20. Maintained
21. What is your reaction and response when you feel that you are not understood by your supervisor?	21. Removed

When referring to older adults' behavior, feelings, and reactions were observed to emerge and interfere with the relationship with the professional. When some type of physical aggression occurred, such as pinching, scratching, or slapping, or verbal aggression, participants reported that they needed to distance themselves from the older adult to contain their feelings, or that they ended up responding and requesting respect, even while recognizing their condition of fragility, as observed below:

When this happens (pinching, scratching, or slapping), I move away, give it a little time, switch with another person [...] then I come back. (W2P2)

[...] many times, it's reciprocal, it's tit for tat. (W1P1)

I said like this: I heard what you said, but I didn't like what you said. You have to respect me [...]. Because we respect them, they have to respect us. (W2P1)

Regarding the fact that older adults complain about everything and nothing seems good, participants recognized that this occurred frequently, which, for them, was related to the difficulty of adapting to the environment of the LTCl, due to the rules and routines imposed on daily life. In this context, they pointed out the importance of establishing interventions on the best way to act with these individuals, but reported not believing that there was a solution to the situation.

But this is very common, guys. Nothing is good. You set up an activity, and it's not good. An LTCl will never be good. Because they lived 70, 80 years in their own house. And they did things the way they wanted [...]. Then they get there. There are rules, routines [...]. (W2P5)

[...] and try to propose interventions with the team as well, to find the best way to act with them and everything else. But, in most cases, they will keep complaining. (W1P4)

Another fact that bothered professionals working in LTCl was when the older adult was repetitive, being considered a common condition among older adults that caused the most discomfort in the team, as it was seen as very tiring.

Because I think it's what causes the most discomfort in the team [...]. He will ask you a million times. It's tiring for you who is listening. (W1P2)

If, on the one hand, negative attitudes of older adults led to reactions of distancing and a desire to respond to offenses, when the older adult showed affection and gratitude, professionals felt satisfied.

We feel grateful. I'm like: wow. I try to do even better. (W2P3)

But it's very satisfying. There aren't even words to describe the affection they have for us. (W1P4)

When questioned about situations in which disagreements between the older adults themselves were observed, this was identified as a frequent condition that required intervention from workers, who were sometimes also affected.

Look, what happens the most is that they create scenes, and by the end of the day, we have to step in. I almost got slapped in the middle of one of those scenes. And then I had to appeal to their religion. (W2P1)

Regarding the work process, the issues proposed in the bingo-type game addressed attitudes of managers or co-workers that could interfere with the humanization of care, as well as with everyone's well-being. Concerning the lack of collaboration among colleagues or disagreements between them, there were those considered lazy for preferring to remain idle. Regarding disagreements, there was an understanding that dialogue was necessary to avoid bigger conflicts.

There are many lazy coworkers [...]. It's not the majority, many are hardworking every day, but yes, there's that little group that likes to kill time. I go after them. (W1P2)

But it depends on the situation, you have to sit somewhere and talk, because otherwise it becomes a bigger conflict. We have to adapt. (W2P1)

When pointing out the fact that they were not valued by their supervisors, workshop participants indicated feelings of sadness and anger, as well as the need to reflect on what they might be doing wrong.

Yes, I just cry. Then I analyze it better and think about it. (W1P1)

Anger, sadness, it makes you want to give everything up, right? (W2P4)

Oh, I'm not one to argue. I try to see what I'm doing wrong. Surely, I'm doing something wrong. (W2P1)

Regarding the workers' own conditions, they confirmed the existence of overload and stress, resulting from the multiple activities present in the LTCl and conflicts with other workers.

But there's the changing, breakfast, lunch, dinner, changing again, taking them to physiotherapy, to get their nails done, to get their hair done. So, it becomes overwhelming [...] it's very tiring. (W1P3)

There was a time when I felt stressed [...] with an employee provoking me. There was a moment when I said I'm not well, I'm going home, because no one has to pay for this. (W2P5)

Furthermore, the discussions based on participants' statements allowed modifications to the initially developed phrases.

Thus, it was found that questions four and six addressed similar content, therefore, question six was eliminated. Regarding question seven, participants stated that the phrase did not reflect reality, as observed in the following statements:

That's fake, that question isn't real. There's no protection, they speak badly about them. Because they don't come to visit, they left them there, said they would come back and didn't [...]. (W1P2)

Look, it's very difficult for that to happen, because they hardly talk about their children. The children are not present. (W2P1)

Regarding questions eight and nine, similarity in responses was also observed, and, therefore, only question eight was maintained.

Question 15, in turn, did not generate discussion and was also removed. During the discussions, participants pointed out the difficulty in dealing with older adults who showed "sexualized attitudes". For the participants, although they understood that this condition was often related to cognitive impairment, they reported that it caused embarrassment and that some of them sometimes distanced themselves from the older adult, as observed in the following statements:

He doesn't insult me, but he flirts with me all day [...]. Hypersexuality ends up happening, and we see that a lot [...]. Some people carry things with them for life. They don't know how to separate. (W2P3)

And we can't allow that to happen, him touching us. So, I say: my husband doesn't like it. (W2P4)

Thus, question 15 was replaced by the following: "What is your reaction when the older adult shows hypersexualized attitudes?" In addition, it was observed that questions 14 and 21 also contained similar content, so question 21 was removed. Therefore, the bingo game came to include 17 questions, which was considered an appropriate number for the activity to last approximately 1 hour and 30 minutes.

After the reflection prompted by the game, a dialogue presentation was conducted, aiming to relate the principles of NVC with the experiences expressed by the workshop participants.

DISCUSSION

As proposed, the educational technology "Humanize LTCI" was applied to LTCI workers in two workshops, aiming at its adaptation and use in other services and occasions. The application dynamics, following gamification principles, contributed to a relaxed and playful approach, which generated reflections on a highly complex topic involving both the condition of older adults and that of managers and workers.

The participants' responses and discussions revealed daily experiences filled with tensions, conflicts, and suffering,

especially arising from the behavior and intense needs presented by older adults, which demand considerable effort from workers. Professionals, in attempting to meet the needs of older adults, are also affected by moments of stress and work overload, whether due to internal factors or those related to the work process itself.

A study conducted in the Netherlands indicated that frontline health professionals working in LTCI considered improvements in management conditions and service organization necessary, aiming to create a stimulating work environment for the team and to promote job satisfaction, thus avoiding staff turnover.¹⁹

Also in the Netherlands, when the implementation of a national program aimed at improving quality in LTCI was analyzed, it was demonstrated that a favorable organizational environment and a culture oriented toward learning are of great importance for achieving good care outcomes in terms of safety, person-centered care, and residents' well-being.²⁰

From this perspective, the bingo-type game "Humanize LTCI", through the questions presented, enabled reflections on the humanization of health care and sharing information about possibilities to alleviate conflicts and strain, based on the principles of NVC. The practice of NVC principles can transform communication dynamics within institutions, minimizing conflicts, promoting mutual understanding, and supporting the construction of a more humanized care environment. A NVC program for Nursing students, aimed at improving interpersonal relationships, empathy, self-esteem, and communication, developed over eight sessions, proved effective in enhancing affective aspects of communication skills.²¹

There are indications that NVC intervention programs can be an effective tool for changing social behavior patterns of individuals and groups, as they increase communicative empathy, sensitivity to one's own needs and experiences and those of others, and develop the ability to verbalize and deal empathetically with stress and conflicts.²²

It is emphasized that communication grounded in respect and empathy is important at all stages of life; however, in old age, it becomes even more necessary, since many older adults present disruptive behaviors characterized by hostility, irritability, stubbornness, and difficulty dealing with frustrations, which may trigger conflicts and disputes.²³ LTCI workers in Taiwan considered empathy a fundamental component in the care process, understanding it as an altruistic form of care, engagement, compassion, and relief of suffering, which occurs through active listening and understanding of the emotions, thoughts, and needs of older adults.²⁴

A study conducted in Spain with 208 LTCI professionals identified that personal factors, such as professional fulfillment, depersonalization, and negative stereotypes about aging, significantly influence the quality of care provided. Depersonalization and stereotypes were associated with lower quality of care, while personal fulfillment and managerial support emerged as positive predictors. These findings reinforce the importance of policies and interventions that value empathetic attitudes, institutional support, and the personalization of care in LTCI.²⁵

In this context, caring for institutionalized older adults who present aggressive behavior, such as insults, frequent complaints, or resistance to care, requires a broader approach grounded in attentive listening and the valuing of subjectivity. Such behaviors may be related both to clinical conditions, such as dementia, and to emotional suffering, frustration, and loss of autonomy resulting from institutionalization.²⁶

A systematic review found that the quality of care in LTCI is influenced by workers' behavior, relationships within the environment, and institutional culture. In this context, leadership plays an important role, as it can use institutional resources to promote care centered on relationships among co-workers, family members, and residents, aiming to improve residents' quality of life, since leaders control organizational resources, including adequate staffing and the allocation of professionals with the knowledge, experience, and skills necessary to meet the needs of older adults.²⁷

In South Korea, care in LTCI is strengthened through partnerships between the care team and families. The importance of flexible organizational management is also highlighted to create a favorable work environment capable of retaining staff for more than three years. Such management should include differentiated training in communication based on practical experience and the implementation of continuous supervision to enhance expertise in care.²⁸

When addressing the process of humanization of care in LTCI, it is important to consider that this is an environment with a high risk of violence against older adults, especially in contexts of conflict. A systematic review of global research on abuse in institutions identified that relatives and staff tend to report higher rates of abuse than residents themselves, even when few cases are observed. Official records generally capture only extreme situations, leading to underreporting, especially in cases of physical, sexual abuse, and neglect.²⁹ Similarly, a study conducted in China with 412 caregivers working in LTCI identified a prevalence of 73.5% propensity toward elder abuse. Factors such as gender, marital status, professional experience, type of employment contract, participation in specific training, level of overload, and perceived social support significantly influenced this tendency.³⁰

FINAL CONSIDERATIONS AND IMPLICATIONS FOR PRACTICE

This study's results showed that the use of a playful and participatory educational technology favored the sharing of experiences among workers and enabled the identification of situations that generate tension, stress, and emotional strain, both related to the behavior of older adults and to the work process and the professionals' own conditions. It is emphasized, however, that the findings refer to the participants' perceptions and reflections, and it is not possible to infer effective changes in care practices or institutional culture.

This study is limited by the fact that the educational technology was applied to a small number of participants, which occurred due to the difficulty of implementing it during working hours and at the workplace. Despite this, it is considered that the bingo proposal and the results obtained allow the expansion of reflections on the needs of older adults living in LTCI, as well as on the conditions experienced by workers, in addition to providing a facilitating tool for the educational process focused on the humanization of care.

Therefore, further studies are recommended, with larger samples and longitudinal methodologies, to evaluate the impact of the educational game not only on workers' perceptions but also on organizational culture and on the quality of care provided.

The material resulting from the educational technology application proved to be an important trigger for discussions about the possible vicissitudes present in the daily routine of LTCI and will be included in the digital repository "Zenodo", with a view to its use by other services. In this way, it contributes to strengthening health and Nursing practices based on the use of soft technologies.

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DATA AVAILABILITY RESEARCH

Data is available upon request to the corresponding author by email – a condition justified by the sensitive nature of the data.

CONFLICT OF INTEREST

No conflict of interest.

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