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Original Article

Use of alternative communication resources for hospital intervention: perception of patients and occupational therapists

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Abstract: Introduction: In the hospital environment, the introduction of Augmentative and Alternative Communication resources is crucial to effective care. Objective: To verify the most suitable Augmentative and Alternative Communication resource for hospital situation from the perspective of patients and occupational therapists. Method: This is a cross-sectional observational study, with a quantitative approach, conducted with 34 patients in two university hospitals and four occupational therapists. Data from the medical record, structured protocol and video recordings of the interventions were used for comparing resources, which included printed communication boards; tablet; communicator and computer. Descriptive analysis, chi-square test and Kappa coefficient were performed using the software Statistical Package for Social Sciences, version 17.0. Results: The tablet with 12 symbols per board was chosen by patients and occupational therapists as the most appropriate device to facilitate communication of the hospital environment. The main factors that led to patient and therapist choices were production of sound and ease of use. Conclusion: The main contribution of the study was to show that the patient, even in health vulnerability and without oral communication, is able to participate actively in the process of choosing the most appropriate Augmentative and Alternative Communication resource to improve their interaction in hospitals.

Keywords: *Communication Aids for Disabled, Self-help Devices, Occupational Therapy, Hospital.*

Uso de recursos de comunicação alternativa para internação hospitalar: percepção de pacientes e de terapeutas ocupacionais

Resumo: Introdução: No âmbito hospitalar, a introdução dos recursos de Comunicação Alternativa e Ampliada torna-se fundamental para o efetivo cuidado. Objetivo: Verificar o recurso mais indicado na situação de internação hospitalar, sob a ótica de pacientes e de terapeutas ocupacionais. Método: Trata-se de um estudo observacional e transversal, com abordagem quantitativa, realizado com 34 pacientes internados em dois hospitais universitários e quatro terapeutas ocupacionais. Foram utilizados dados do prontuário, protocolo estruturado e videogravações das intervenções para avaliação da comparação dos recursos de Comunicação Alternativa e Ampliada, que compreenderam prancha de comunicação impressa; tablet; comunicador e computador. A análise descritiva, o teste qui-quadrado e o coeficiente Kappa foram realizados por meio do software Statiscal Package for Social Sciences, versão 17.0. Resultados: Os resultados mostraram que o tablet, com pranchas com 12 símbolos, foi o recurso escolhido pelos pacientes e terapeutas ocupacionais como o mais indicado para facilitar a comunicação no ambiente hospitalar, e os principais fatores que motivaram a escolha foram a facilidade do toque e a possibilidade de produção do som. Conclusão: A principal contribuição do estudo foi a de mostrar que o paciente, mesmo em situação de vulnerabilidade de saúde e sem comunicação oral, é capaz de participar ativamente do processo de escolha do recurso de Comunicação Alternativa e Ampliada mais adequado para ampliar a sua comunicação no contexto hospitalar.

Palavras-chave: *Auxiliares de Comunicação para Pessoas com Deficiência, Equipamentos de Autoajuda, Terapia Ocupacional, Hospital.*

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1 Introduction

The ability to communicate efficiently during the hospitalization process is considered a fundamental right of the patient to maximize his care, comfort and well-being (SANTIAGO; COSTELLO, 2015).

The patient's ability to communicate and participate in his treatment influences how health decisions are made (PATAK et al., 2009). The exchange of information with the hospital care team can be a hard task for those patients with temporary or permanent communication disabilities.

In the hospital environment, communicative difficulties are frequently related to injuries resulting from traumatic brain injury, stroke, degenerative diseases, traumas in structures responsible for speech, or as a consequence of intubations during hospitalization (RODRIGUEZ; BLISCHAK, 2010; BROWNLEE; BRUENING, 2012; THOMAS; RODRIGUEZ, 2011).

With the communicative difficulties in hospital admission, alternative strategies of interaction are adopted by the patient, such as cervical movements, hand signals, gestures and lips movements, without the emission of sound (THOMAS; RODRIGUEZ, 2011). The strategies are often inefficient, which can result in frustrated, anxious, nervous and depressed patients (PELOSI, 2005; RODRIGUEZ et al., 2012a; THOMAS; RODRIGUEZ, 2011). This difficulty of communication can be accentuated by the presence of tubes, edema in the face and oral cavity, muscle weakness and upper limb restraint (RODRIGUEZ; BLISCHAK, 2010; RODRIGUEZ et al., 2012b).

Systematic review studies showed that the main losses for patients with communicative problems were due to the difficulty in participating in the planning of their treatment; to make important decisions related to their quality of life; to inform the professionals who attended them about new symptoms or changes that occurred, to express dissatisfaction with the care received (ZUBOW; HURTIG, 2013) and to interact with loved ones (BROWNLEE; BRUENING, 2012; SANTIAGO; COSTELLO, 2015).

Physicians, nurses, physiotherapists, speech therapists, occupational therapists, among other health professionals who work directly in the care of these patients with communicative difficulty, also share feelings of frustration and impotence (PELOSI, 2005; RODRIGUEZ et al., 2012a), and they show difficulties in the dynamics of the evaluation and intervention process (SANTIAGO; COSTELLO, 2015).

In this way, the Alternative and Expanded Communication (AEC) becomes fundamental in this process. The AEC is one of the areas of Assistive Technology, and its introduction in the hospital context has contributed decisively to the care of patients with speech or writing difficulties (BROWNLEE; BRUENING, 2012; THOMAS; RODRIGUEZ, 2011; HAPP et al., 2014; PELOSI; NASCIMENTO; SOUZA, 2014; SANTIAGO; COSTELLO, 2015).

A study carried out at the University Hospital of Mansoura, Egypt, in an Intensive Care Unit, indicated that the use of the communication board by intubated patients was an effective resource to reduce stress, favor communication and increase satisfaction health care offered (EL-SOUSSI et al., 2015).

It is emphasized that the introduction of the AEC can be a challenge to attend hospitalized patients in all their needs, given the conditions related to the patients and the limited knowledge of the AEC area by health professionals, besides to complexity in the hospital context.

The main factors that hinder the use of Alternative Communication resources by hospitalized patients are the fluctuation of the patient's condition and cognitive aspects; visual difficulties; fatigue; muscle weakness; lack of muscle coordination; delirium; sedation; and difficulties of (HAPP et al., 2010; DOWNEY; HAPP, 2013; SANTIAGO; COSTELLO, 2015).

These conditions influence the choice of the resource to be used by each patient, the number of symbols to be used, the selection technique and the ideal positioning of the resource and the hospitalized person.

Professionals such as speech therapists, occupational therapists, nurses, psychologists, among others, can collaborate in the implementation of the Alternative Communication resources for hospitalized patients. Communication management is one of the areas of the Instrumental Activities of Daily Living that are part of the occupational therapist´s domain (AMERICAN..., 2014).

This management includes sending, receiving, and interpreting information using a variety of features such as computers, tablets, and communication boards. The work of the occupational therapist involves assessing client factors, which include the structures and functions of the body, their values, beliefs and spirituality; performance skills such as motor, process and social interaction; performance standards with habits and routines; and the context and environments in which the activity will be performed (AMERICAN..., 2014).

For AEC implementation to be effective, Downey and Happ (2013) stress the importance of interdisciplinary team building, systematic planning, and commitment and partnership of the working group.

Several studies point to the importance of training for health professionals, so they can use low-tech resources in their clinical practice and learn how to interpret gestures performed by patients (CERANTOLA; HAPP, 2012; DOWNEY; HAPP, 2013).

The results found in the scientific literature certify that the AEC has been essential for communication and care in the hospital context. However, these studies have focused on the communicative difficulty in specific clinics (MOTA; FABIANA, 2010; CERANTOLA; HAPP, 2012); the communicative difficulties associated with the use of tracheostomy (RODRIGUEZ; BLISCHAK, 2010); the use of a single AEC resource, such as printed boards (EL-SOUSSI et al., 2015) or the tablet (PALMEIRAS; BETTINELLI; PASQUALOTTI, 2013). Besides they are studies in which the indication of the AEC resource is made without considering the user´s preference (VAN DER MEER et al., 2011; IACONO et al., 2013; PATERSON; CARPENTER, 2015).

Thus, there is a need for more research involving patients hospitalized in different clinics and with diverse communicative issues, as well as having the opportunity to try more than one AEC resource. The objective of this study was to verify the most appropriate AEC resource to be used in the hospitalization situation, from the perspective of patients and occupational therapists.

2 Method

2.1 Characterization of the research and ethical aspects

This is a cross-sectional, prospective, observational study with a quantitative approach that integrates the project "Implementation of Alternative Communication for Patients with Difficulties of Speech", approved by the Ethics and Research Committee of UFRJ, with Opinion no. 66/11.

2.2 Place

Data were collected at different clinics of two hospitals located in the Southeast Region of Brazil: University Hospital Clementino Fraga Filho (HUCFF-UFRJ) and Hospital de Clínicas (HC), Federal University of Triângulo Mineiro (UFTM), Uberaba - MG, from June 2012 to March 2014.

2.3 Criteria for selection of the participants

The inclusion criteria involved patients who presented oral communication difficulties, of both genders, indicated for follow-up by the occupational therapy service of the respective hospitals and who agreed to participate in the study. The cognitive ability to understand the functioning of resources, respond to requests made by therapists, and recognize symbols was also an inclusion criterion.

Those patients who: 1) did not participate in at least two occupational therapy visits for reasons such as hospital discharge; 2) death; 3) not having performed the experimentation of all the resources involved in the research; 4) presented cognitive difficulties that would hinder the possibility of interaction with the therapists; 5) presented difficulties in choosing the AEC resource; and 6) had been readmitted and had already been interviewed during the collection period were excluded.

2.4 Participants

Thirty-four patients participated in the study, being 20 women and 14 men, and 4 occupational therapists.

2.5 Collection instrument

The protocol used was composed of six topics:

1. Personal data of the patient (name, age, diagnosis, general condition, medical record number and ward in which he was hospitalized);
2. Information on communicative difficulty (presence of tracheostomy, if intubated, or other impediments related to the underlying disease);
3. Evaluation data (number of interventions performed for the evaluation, time spent on each intervention);
4. Patient´s abilities and difficulties data (type of communication, visual possibility, cognitive aspects, including attention time and motor ability to hold, reach, point, among others);
5. Data related to the resources offered (communication board, communicator, computer, and tablet), type and number of

symbols used, access form, positioning and support need;

6. Therapist´s choice established through consensus and patient´s choice on the most appropriate resource and motivational factors. The consensus was based on the evaluation of four occupational therapists with expertise in the area.

2.6 Data collection and analysis procedure

For data collection, occupational therapists were trained about the AEC resources. They received in-service supervisions and attended the Assistive Technology course, which has a specific Alternative Communication module. In this theoretical-practical module of 40 hours, they learned about the different AEC resources used in the research, how to customize them and the necessary care to include them in the hospital context. Also, these therapists underwent training in filling out the data collection instrument and in how to approach the interviewee. The most resource voted or unanimously voted, was considered the most appropriate for each patient. The cases were evaluated in double and later discussed with the support of information collected in the medical record, in the research instruments and in the video recordings of the interventions. After this step, occupational therapists made their choice separately to choose the most appropriate resource for each patient.

It should be emphasized that, before starting the data collection, the occupational therapists performed an initial evaluation of the patients, with the help of a communication board, containing seven options of city sights, the place where the patient was hospitalized, and as a facilitator to clarify the objectives of the research and orientation of what resources would be offered.

Also, the use of the communication board had the function of verifying the abilities to hold the resource; take the board; to point, and to collect data on motor coordination and the existence of tremors. This initial procedure avoided offering a resource that the patient was unable to use.

The choice of resources considered the following criteria: equipment sold in Brazil; software and applications that had a voice synthesized in Portuguese or could be personalized with recorded voice; possibility of access by the scanning system to contemplate the patients with difficulties of motor coordination or incapacities that impeded the movements of the upper limbs.

The Alternative Communication resources employed were printed communication boards; 10' tablet with Android operating system; 10' tablet with iOS operating system; AbleNet and Tobbi communicators. The software used in the computer was the Boardmaker with Speaking Dynamically Pro and Tobii Communicator. The applications used for iOS were Sounding Board and Go Talk Now, and for the tablet with the Android operating system, the chosen application was Que-fala.

As the purpose of the research was not to evaluate the vocabulary employed in each resource, the researchers chose a topic that could be explored by all patients in the experimentation of AEC resources, regardless of age and gender.

For the data collection, the information of the medical record, the structured protocol for evaluation of the comparison of the resources of Alternative Communication created by the group, and the video recordings of the interventions were used.

It should be noted that communication boards with photographs representing the printed boards used, the tablets and the computer were developed to facilitate patient choice. To assist in the justification, other boards were made with symbols representing options like weight; number of information and screen size; symbols more easily recognizable; ease of understanding of the functioning of the resource; presence of sound; ease of operation; the existence of other resources in the equipment, besides the AEC application, such as e-mail and Facebook; and other reasons. For that, an alphabet board was provided for the patient to spell out their justification.

The completion of the protocols was supervised by peers, so no blank topics remained. When necessary, the instruments were returned to the interviewers to supplement the information.

After the data collection, the database was prepared in Excel® spreadsheet and double typed. Subsequently, the consistency between the two databases was made. In case of divergences, there were corrections based on the information contained in the original interview. For the analysis of the material, the database was imported into the software Statistical Package for The Social Sciences - SPSS, version 19.0.

Data were submitted to descriptive analysis of categorical variables and measures of central tendency (mean) and dispersion for continuous

(maximum and minimum values). The chi-square test and the Kappa coefficient were used to verify the perception of patients and occupational therapists in relation to the AEC resources and the number of symbols. Agreement was interpreted as low (<0.40); moderate (0.40-0.75); and excellent (> 0.75). This study considered the level of significance of $p<0.05$.

3 Results

To better understand the results, the data of this study will be presented in topics: a) demographic and health characteristics, with information regarding age, gender, hospitalization ward, disease and the cause of communicative difficulty; b) communicative difficulties and access to resources, with data related to the communication modality before the introduction of the AEC resource and the form of access, including pointing, scanning and clicking with the help of a tablet pen; c) selection of the Alternative and Expanded Communication resources with information on the opinion of patients and occupational therapists; d) use of the symbols, with data related to the number of elements most frequently chosen by the research subjects; e) motivational factors for the choice, with information such as the possibility of hearing the word or phrase related to the chosen item; and f) adaptations to the use of resources, with information on the need for a table and slope.

For the evaluation of the resources, two to six meetings were held with the pair of occupational therapists in the infirmary or the Intensive Care Center where the patients were hospitalized. The mean time required for experimentation of the resources was 130 minutes, with a minimum of 80 and a maximum of 180 minutes.

3.1 Demographic and health characteristics

Table 1 shows a summary of the demographic and health characteristics of the participating patients. Most of the patients were female (58%), 60 years old or older (46%), hospitalized in the medical clinic (42%), with oncological and hematological diseases (47%).

In the situation of resource trials, the main difficulties were related to motor coordination (27%) and the impossibility of ensuring and using the resource simultaneously (27%).

Table 1. Demographic and health characteristics (n = 34).

Variable	Frequency (%)
Age	
14 to 19 years old	(2%)
20 to 29 years old	(9%)
30 to 39 years old	(10%)
40 to 49 years old	(14%)
50 to 59 years old	(19%)
60 years old or more	(46%)
Gender	
Female	(58%)
Male	(42%)
Wards	
Medical clinic	(41%)
Neurology	(30%)
Intensive Care Center	(18%)
Onco-Hematology	(11%)
Diseases	
Oncological and hematological	(47%)
Cardiac	(32%)
Neurological	(11%)
Others	(10%)
Communicative Difficulties	
Tracheostomy	(59%)
Basic disease	(23%)
Aphasia	(16%)
Others	(2%)

As for physical restraint of the upper limbs, only 6% of the sample presented this situation. None of the patients demonstrated difficulty in using the resources because of venous access.

In the group, there were no patients with hearing difficulties. As for the presence of glasses, most of them used the resource (75%). There was only one patient in the low vision group (3%).

3.2 Communicative difficulties and access to resources

Regarding communicative difficulties, the highest percentage was related to the presence of tracheostomy (41%). Data of the form of communication before the introduction of the AEC showed that the patients did not have only one type of communication, but they combined more than one alternative, such as lip mime and gestures, which were the most frequently cited communicative strategies (74 %).

It was verified that most of the patients were able to access the resources directly through pointing (76%). The other forms of access included the scanning system (18%) and the use of the tablet pen (6%).

3.3 Choice of Alternative and Expanded Communication resources

As for the choice of the most adequate resource to favor communication in the hospital environment, the tablet was considered the most indicated by the patients (59%) and also by the occupational therapists (50%), with moderate agreement level (k = 0.47) and with an association between the choices (p<0.006).

3.4 Use of symbols

As for the number of symbols, the 12-option boards had a similar percentage between patients (38%) and therapists (35%), but with no association (p<0.299) and with the low agreement (k = 0.17). In the evaluation of patients and occupational therapists, the use of Alternative Communication resources in the hospital environment with less than 12 symbols or more than 25 did not prove to be functional.

3.5 Motivational factors

The motivational factors that predominated in the choice of patients were sound production (62%), ease of activation (58%), the opportunity to use other applications and the internet, access to a database of photographs or videos, and communicate through e-mail and social networks during the period of hospitalization (48%). For occupational therapists, sound production by the resource was the most relevant aspect (100%), followed by the ease of understanding the functionality of the device (74%) and the sensitivity of the touch resource, evaluated in the facility item to access (68%).

3.6 Adaptations for the use of AEC resources

Besides the choice of Alternative Communication resources, occupational therapists found that half of the sample (50%) needed bedside indication to more fully utilize AEC resources. Among them, most of them (65%) needed the combination of bed table and slope.

The presence of a mediator was signaled in approximately 25% of the sample, that is, for the AEC to take place in the hospitalization situation, the help of a family member or caregiver may be necessary to assist in the communicative process.

The other adaptations considered by occupational therapists included the need to set the mouse cursor to an enlarged size, use of the electronic magnifying glass on the computer, the use of high-contrast patches on computer keyboard keys, the use of a weight bracelet and the holder to attach the tablet to the wheelchair.

Another aspect investigated was the need to protect AEC resources, the type of protection used and their interference in the function of the equipment, based on the guidelines of the Hospital Infection Control Commission (HICC). The results showed that all resources needed to be protected and were wrapped with plastic film.

4 Discussion

Regarding the time spent, it was found that older people needed more time to experiment AEC resources. This study suggests that in the process of healthy aging, mild cognitive alterations occur that reduce the speed of information processing, oblivion of recent events, changes in attention state, decreased concentration and reasoning, as well as a more pronounced slowness in the perceptual aspects, mitotic, cognitive and motor aspects (ZIBETTI et al., 2010).

Concerning the form of access to the resource, most of the patients used direct selection. However, due to the motor difficulties in this sample, the need for the support of a communication partner or the use of adaptations, such as special pens, to allow this type of selection was observed.

Regarding the physical containment of the upper limbs, this was performed by the nursing, through the bandage of the hands, to prevent the patient to withdraw the venous or parenteral access. Although restraint did not make it impossible for him to use the resources, there was a need to support these resources on a stand, in his bed, or to be held by someone. Also, it was necessary to increase the spacing between the symbols, so their aiming was facilitated, which caused the reduction of the number of symbols on the board.

Regarding the cause of the communicative difficulty, research conducted with patients at the Intensive Care Center in the northern state of Rio Grande do Sul, Brazil, corroborate the findings of this research, considering that 59% of patients could not communicate by to have a tracheostomy (PALMEIRAS; BETTINELLI; PASQUALOTTI, 2013). Another study carried out with cancer patients also found data consistent with this study, with a

tracheostomy (45%) being the most predominant cause of the impossibility of oral communication (RODRIGUEZ; BLISCHAK, 2010).

Regarding the strategies most used for communication before the beginning of the introduction of the Alternative Communication, the results found in this study were different from those found in a study of 162 adult patients admitted to different Intensive Care Centers in Florida, who observed the predominance of cervical movements (84%), followed by hand signals (56%) as alternative strategies to oral communication. However, they corroborate the combination of more than one alternative to communicating, since the study pointed to the predominance of three different communicative strategies for 33% of the patients surveyed (THOMAS; RODRIGUEZ, 2011).

These strategies adopted by patients with communicative difficulties can often be inefficient and result in frustrated, nervous and depressed patients because professionals do not understand the information (PELOSI, 2005). This obstacle can be accentuated by the presence of tubes, edema in the face and oral cavity, and by the containment of upper limbs (RODRIGUEZ; BLISCHAK, 2010; RODRIGUEZ et al., 2012a).

This study showed that the tablet was the preferred resource by occupational therapists and patients to facilitate communication in the hospital setting. The possibility of expressing their wishes and needs with the support of the sound emission impacted on the choice. Also, there was the ease of direct access through a touch screen and to extend social interactions with the use of social media. For the occupational therapists, another important aspect was the simplicity of use of the tablet, for having an intuitive design.

A study that verified how adults with severe communicative difficulties decided on the communication methods, to use in different contexts, brought similar results to this research, since the high technology resources, such as the tablets, were chosen by the study participants (PATERSON; CARPENTER, 2015).

Research by nurses, in which they evaluated the use of the tablet with the AC Mobile application for adults in ICU, unable to communicate orally, verified that this device contemplated the patients' needs and benefited the communication and the relationship between them and the health professional (PALMEIRAS; BETTINELLI; PASQUALOTTI, 2013).

Another study carried out with hospitalized adult patients submitted to head and neck surgery as a consequence of cancer found that the use of high technology resources may be important during the postoperative period to facilitate communication. However, they should be adapted to meet the specific needs of patients (RODRIGUEZ; ROWE, 2010).

This need for adaptation of high technology resources was also observed in a study that verified the usability of Nintendo Wii Fit to promote physical activity in adults with multiple sclerosis. The authors pointed out that barriers should be identified in order to increase the patient's effective use of the resource (PLOW; FINLAYSON, 2013).

Therefore, it is essential that the implantation and implementation of Assistive Technology resources involve the service of qualified professionals in this area, so they can evaluate the patients' needs, adapt the resource to the needs of each individual and carry out the necessary training with the patient, caregivers and professionals involved.

The opinion of AEC patients, regarding the choice of the most appropriate resource to help their communicative process, is extremely relevant in the process of implementing an alternative system. However, the patient is not always able to perceive the difficulties that a certain choice may entail.

Despite the difficulty of motor coordination presented, some patients chose the tablet in the process of experimentation of the resources, while the occupational therapists considered that the communicator or the computer, with a scanning system, would be more adequate resources.

The occupational therapist makes his choices based on the evaluation of the user, considering the motor, cognitive, emotional and social aspects, the task that will be performed and the environment where it will take place. The professional traces the occupational profile of the patient; identifies the occupations and activities required for the AEC to develop; identifies the communication partner; selects the most appropriate feature; empowers partners; and accompanies the development of the process with constant reevaluations (PELOSI, 2005, 2009).

The occupational therapist plays a central role in discussions about different forms of access; integration of sensory and motor functions; in the development of the functionality of the upper limbs and other parts of the body, in the control of the environment; and in acquiring independence in its activities (KING, 1999), as in communication. In addition, their participation is fundamental in the training actions of other professionals and hospital employees to facilitate the introduction of Alternative Communication resources in this context.

Regarding the necessary care with AEC resources for the control of hospital infection prevention, the data obtained in this study corroborate those found by Nascimento et al. (2017), who described the need to plasticize printed communication boards, wrap computer, tablet and communicator with plastic films, as well as to protect plastic materials such as tables and inclined planes with plastic bags. The authors highlight the complexity of the use of AEC resources in the hospital environment, by occupational therapists, and the need for training of professionals involved in these actions by the Hospital Infection Control Commission team.

The importance of each service to find strategies for storing AEC resources, besides making them readily available for use, was emphasized in the study by William and Hatch (2013), who verified the effectiveness of the use of Alternative Communication once that their resources allow hospitalized patients to express their needs during care.

5 Conclusion

The objective of this study was to verify the most appropriate AEC resource to be used in the hospitalization situation, from the perspective of patients and occupational therapists, and showed that the tablet was the preferred resource of both groups. The possibility of expressing the desires and needs with the support of the sound emission impacted on the choice. Added to this, there is the ease of direct access through a touch screen, the possibility of expanding interactions with the use of social media and the intuitive design of the tablet.

The study showed that even in a situation of health vulnerability and without oral communication, the patient is able to participate actively in the process of choosing the most appropriate AEC resource to expand their communication in the hospital context. For this, it was necessary that the occupational therapists elaborate planks of communication with pictograms and made boards with letters of the alphabet that allowed understanding the opinion of the users. The study also showed correlations between the choice of occupational therapists and those of patients, reaffirming that actions in the AEC area should be client-centered.

As a consequence of the methodological decision to use the city sights involved as a repertoire in the different devices, it was not possible to research the most relevant vocabulary to support the communicative interactions of hospitalized patients, which is recommended for future studies in the area.

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Author's Contributions

Miryam Bonadiu Pelosi and Janaína Santos Nascimento were responsible for designing, writing, reviewing the work, organizing sources and analyzing it. All authors approved the final version of the text.