INTEGRATIVE REVIEW OF THE LITERATURE

Communication with people with hearing disabilities: an integrative review

Rodrigo Sousa de Miranda 1, Carla Oliveira Shubert 2, Wiliam César Alves Machado 3

Objective: to identify in the literature how the communication between healthcare professionals and patients with hearing disabilities occurs. Method: Integrative review. The research was based in the MEDLINE, BDENF, LILACS, and SciELO databases through the following descriptors: communication, nursing, hearing deficiency, deafness, deaf, and nursing care. Results: The 19 articles were grouped in the following categories: communication strategies; professional training; professional relationship with the deaf, and suggestions for improving the communication between the deaf and health professionals. Conclusion: Each deaf person presents specific communicational needs, and the nurse should choose along with the deaf, the best communication strategy respecting their limitations.

Descriptors: Sign language, Non-verbal communication, Nursing care.

Objetivo: identificar na literatura como ocorre a comunicação entre profissionais de saúde e os pacientes com deficiência auditiva. Método: Revisão integrativa. A busca foi realizada nas bases de dados MEDLINE, BDENF, LILACS e SciELO por meio de seus descritores: comunicação, enfermagem, deficiência auditiva, surdez, surdos e cuidados de enfermagem. Resultados: Os 19 artigos foram agrupados nas seguintes categorias: estratégias de comunicação; formação profissional; relacionamento do profissional com o surdo e sugestões para melhoria da comunicação entre surdos e profissionais de saúde. Conclusão: Cada surdo apresenta necessidades comunicacionais específicas, cabendo ao enfermeiro a escolha, junto com o surdo, da melhor estratégia de comunicação, respeitando suas limitações.

Descritores: Língua de sinais, Comunicação não verbal, Cuidados de enfermagem.

Objetivo: Identificar en la literatura cómo la comunicación se produce entre los profesionales sanitarios y los pacientes con problemas de audición. Metodología: Revisión integrada. La búsqueda se realizó en MEDLINE, BDENF, LILACS y SciELO mediante sus descriptores: la comunicación, la enfermería, el deterioro, la sordera, sordo y de enfermería de audición. Resultados: 19 artículos fueron agrupados en las siguientes categorías: estrategias de comunicación, la formación, la relación profesional con las personas sordas y sugerencias para mejorar la comunicación entre los profesionales sordos y la salud. Conclusión: Los sordos presentan necesidades específicas de comunicación, dejando la elección a la enfermera, junto con los sordos, la mejor estrategia de comunicación, respetando sus limitaciones. Descriptores: Lenguaje de signos, Comunicación no verbal, Atención de enfermería.

ABSTRACT

RESUMEN

RESUMO
There are two ways of thinking about disability: the first and oldest is based on a medical model, and the second on the social model, which is the current trend. The main feature in the medical model is the decontextualization of disability, focusing on it as an isolated incident. The social model on disability values diversity and arose from the initiative of disabled people gathered in the Social Disability Movement in the decade of 1960.¹

According to this social model, disability is the sum of two inseparable conditions: the sequels on the body and the physical, economic, and social barriers imposed by the environment to the individual with these sequels. Under this perspective, it is possible to understand disability as a collective construction between individuals (with or without disabilities) and the society.²

Still about the context of disabilities, the hearing disability is by definition the partial or total bilateral loss of 41 decibels or more measured by audiogram on certain frequencies.³ According to the latest census conducted in 2010; the number of people who declared themselves with some degree of hearing loss was over nine million. More than two million reported great difficulties or not hearing at all, from these, about 1.7 million reside in major urban centers.⁴ Due to the large number of people with this specific deficiency, the communication with this clientele is essential.

When we think about communication, we must remind us of its elements so that it is fully and effectively performed in the family, social, and hospital environments avoiding communication shortcomings and noises. They are the context in which the interaction will occur, the interlocutors - receiver and emitter - whose functions alternate when there is interaction and always demand a response or feedback, the message that one wants to convey and the channel or medium used to transmit the messages. The attention to these elements is closely linked to a reliable understanding of the message.⁵

We nurses “spend” too much time in elements of communication: presence and absence, speech and silence, messages, channels, symbols, assistance, creativity, and ethics. All these elements are part of our nursing acts, even without our awareness.⁶

Communication with listening clients is made by health professionals through the verbal language, whether oral or written, mechanisms that cannot always be used with deaf clients. With these clients, it is recommended that health care professionals, in this case, professionals from the nursing staff use the Brazilian Sign Language - Libras.

Sign languages are complex as spoken languages, have a structured linguistic system, and are articulated neurologically in the same brain areas as spoken languages. They possess space-visual modality, whose shared signs are received through the eyes, and their quiro-articulation is performed in space.⁷
It is noteworthy that the term Brazilian Sign Language is preferable to the term Brazilian Language of Signs because there is no Brazilian Language, spoken or written. A Sign Language is a unit that refers to a quiro-articulatory-visual linguistic modality, different from the Portuguese language, which uses the oro-articulatory-auditory sensory channel. The Brazilian Sign Language was duly recognized as the official language of deaf communities in Brazil by the law No. 10,436/02, popularly known as the Libras law. Despite the global trend of sign languages having their acronyms with just three letters, as for example, the ASL-American Sign Language and BSL-British Sign Language, the acronym Libras remains in use by choice of the deaf community until today.

It is through communication that the health professional will decipher and understand the meaning of the message that the patient sends, establishing then a care plan consistent with the needs of each individual. Through effective communication the professional helps the patient to view their role in the process of illness, face problems, and find new patterns of behavior. The nurse, more than any other health care professional, must be aware of the proper use of interpersonal communication by interacting directly with the patient.

To guide this integrative review, we started with the assumption that nursing teams do not know how to communicate with people with hearing disabilities by formulating the following question: What alternative forms of communication are used when assisting this clientele? To contribute to the nursing care provided to this clientele, this research aimed to identify in the literature how the communication between healthcare professionals and patients with hearing disabilities occurs.

METHOD

This study is an integrative review that is characterized by grouping, analyzing, and synthesizing results of research on a particular theme, in a systematically and orderly manner, in order to present, discuss, and deepen the knowledge about the theme. The articles were researched in April of 2013 in the MEDLINE, BDENeF, LILACS, and SCIELO databases through the following descriptors: communication, nursing, hearing loss, deafness, deaf, and nursing care.

Six distinct steps encompassed the construction of this integrative review: identification of the theme and selection of the research guiding question for the preparation of the review; establishment of inclusion and exclusion criteria; definition of the information to be extracted from the selected studies/categorization of studies; evaluation of the studies included in the integrative review, interpretation of results, and presentation of the review/synthesis of the knowledge. Sixty-six articles were found within the above descriptors. The inclusion criteria were: published articles in Portuguese, Spanish, and English. We opted for articles published between 2000 and 2013 restricting our sample to 40 articles. Of these, 18 original articles and three review papers presented texts in their entirety. Two original articles
RESULTS E DISCUSSION

Nineteen articles, 16 original articles (Table 1) and three review articles (Table 2) were identified after the inclusion and exclusion criteria were applied. For this integrative review, we chose to maintain review articles because they contain relevant information that could corroborate this study.

Table 1: Distribution of original research articles in chronological order.

<table>
<thead>
<tr>
<th>Authors (Year)</th>
<th>Title</th>
<th>Journal/ Database</th>
</tr>
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<tbody>
<tr>
<td>Chaveiro N, Barbosa MA.13 (2005)</td>
<td>Assistência ao surdo na área de saúde como fator de inclusão social.</td>
<td>Rev. esc. enferm. USP / Scielo</td>
</tr>
<tr>
<td>Lieu CC; Sadler GR; Fullerton JT; Stohlmann PD.17 (2007)</td>
<td>Communication strategies for nurses interacting with deaf patients.</td>
<td>Medsurg Nurs / MEDLINE</td>
</tr>
<tr>
<td>Vanegas BC, Castro LH, Páez MP, Ramirez NS, Saicedo L.J.18 (2008)</td>
<td>Comunicación del profesional de enfermería con pacientes que tienen dificultad en la expresión verbal por sordera</td>
<td>Rev. colomb. enferm / LILACS</td>
</tr>
<tr>
<td>Britto FR, Samperiz MMF.22 (2010)</td>
<td>Communication difficulties and strategies used by the nurses and their team in caring for the hearing impaired</td>
<td>Einstein / LILACS</td>
</tr>
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Perception of the deaf person about assistance to health in a municipality of medium size: study descriptive-exploratory

Language planning for the 21st century: revisiting bilingual language policy for deaf children

Use of film as a teaching-learning strategy for people with disabilities: perception of nursing students

Advances in communication technology: implications for new nursing skills.

Table 2: Distribution of review articles in chronological order.

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<tr>
<th>Authors (Year)</th>
<th>Title</th>
<th>Journal/ Database</th>
</tr>
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<tbody>
<tr>
<td>Chaveiro N, Barbosa MA, Porto CC.7 (2008)</td>
<td>Revisão de literatura sobre o atendimento ao paciente surdo pelos profissionais da saúde</td>
<td>Rev. esc. enferm. USP / Scielo</td>
</tr>
<tr>
<td>Côrrea CS, Pereira LAC, Barreto LS, Celestino PPF, André KM.29 (2010)</td>
<td>O despertar do enfermeiro em relação ao paciente portador de deficiência auditiva</td>
<td>Rev. pesqui. cuid. fundam. (Online) / BDENF</td>
</tr>
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Category 1: Communication strategies

The first category brings the communication strategies used in interactions with deaf patients. Three articles did not fit in this category, namely Deaf patient relationship with the doctor, The use of movies as a teaching-learning strategy for people with disabilities: the perception of nursing students, and Communication skills for interviewing hearing-impaired patients. Because 16 articles (84.2%) bring relevant considerations to the category, we chose to split it into four subcategories: verbal communication, nonverbal communication, communication via interpreter, and communication via electronic devices.

Subcategory: verbal communication

The verbal communication would be the one that uses words themselves, whether written or spoken, and also used interactions with deaf patients. One study shows that 42% of respondents used this form of communication to interact with this clientele.

The use of written notes is very common among health professionals and deaf clients. However, words in Portuguese can pose barriers to the communication because these individuals have Libras as their first language and often had little access to the educational system. However, when the patient is literate in Portuguese, this method can be used as the primary form of communication when one of the parties is not able to use Libras.

The difficulties arising from this form of communication also occur between deaf patients and professionals because nurses cannot comprehend written sentences that result...
from the grammatical structure of Libras, which is different from that in the Portuguese language.\textsuperscript{14}

Subcategory: non-verbal communication

Some authors highlight the importance of non-verbal communication as a strategy of communication in their studies, although they do not comment about possible categories. According to these authors, the professionals will provide better assistance when they realize that attention to non-verbal communication leads to meeting the needs of clients.\textsuperscript{12, 7, 29}

The deaf preferably use the Sign Language as the main form of communication,\textsuperscript{15} because most children acquire their language skills through interaction and communication with relatives and later through interactions at school.\textsuperscript{25} Once they grow in intimate contact with the deaf community they develop fluency in Libras.

A study involving five nurses from Rio Grande do Sul cites the importance of non-verbal communication, whether through Libras, gestures, mimes, and/or lip-reading for the integral understanding of the dialogue with this clientele.\textsuperscript{20} Another study conducted in Ceará points out that the most used forms of non-verbal communication were mime, gestures, and lip reading, however it states that the method is effective only when using short messages.\textsuperscript{16} Patak, Wilson-Stronks, Costello et al\textsuperscript{21} claim that the lack of understanding generated by these strategies leads to frustration.

The Lip Reading requires a lot of attention to be used as the primary form of communication for the simple fact that several phonemes are reproduced with similar lip movement. Even highly skilled people can understand between 30\% and 40\% of the message observing the movement of lips. In addition, the change in head position can lead to loss of information.\textsuperscript{15, 22} The understanding can still be influenced by luminosity, distance from who is talking, difficulty to see the face of who speaks, or even little familiarity with the speech patterns of the individual.\textsuperscript{17, 14}

Mime is also used as a form of compensatory communication by professionals who do not dominate Libras. One study with nursing professionals in a large hospital in the city of São Paulo showed that all professionals (37 nurses and 63 nursing technicians) used mime to interact with deaf clients.\textsuperscript{22}

A Colombian research presents the communication through graphics and demonstration as a form of communication in their results - different than mime - with their own used objects in the procedure and before performing it to ensure the understanding and cooperation of the deaf.\textsuperscript{18}

Subcategory: communication via an interpreter

The interpreter of Libras is the professional who dominates the sign language and the language spoken in the country, and who is qualified to play the role of the interpreter. In our country, they are required the mastery of Brazilian sign language and Portuguese language, can dominate other languages and interpret into the language of signs or otherwise. In addition to this field of languages involved in the process of translation and interpreting, the interpreter needs to have specific qualifications to act as a professional by also dominating processes, models, strategies, and techniques of translation and
Today, the correct term to identify this professional is Translator Interpreter of Libras - TILS.

Some deaf people can be reluctant to use an interpreter if he or she is not known in the deaf community. Deaf people are concerned about issues of confidentiality during the consultation; however, they might remain unaware of the decisions about treatment without an interpreter to mediate the communication. Trust is an essential factor in the interaction of the deaf with the TILS.

Despite the reduced number of interpreters, TILS professionals are preferable to family members to mediate consultations because relatives can hide bad information from patients or even make decisions for them based on what they believe would be the best conduct for the client. The use a relative as an interpreter may not achieve the objectives of an effective communication because that person might not have the vocabulary required to explain complex medical concepts; they can also fail to provide information that can be crucial for a correct diagnosis and treatment. However, Bentes, Vidal, and Maia point out that deaf people remain dependent on family or friends when they seek health assistance.

Interpreters in the United States work in conjunction with the hospital administration and staff to ensure effectiveness in the service provided. Once they become familiar with the deaf culture, they facilitate the communication between professionals and deaf clients.

Subcategory: Communication via devices

The communication can be facilitated through the use of computers side by side, for example, where the deaf and health professional can ask questions and respond simultaneously.

Some companies offer interpreting services in the United States to both health professionals and hearing impaired clients who have access to a computer with a webcam and high-speed internet. With the advent of smartphones and its popularization, several programs or applications that can be used for the communication by people with hearing or speech impairments have been developed. Some give voice to the user through written or verbal commands by the recognition of signs. The drawback is that many of these programs are not available to users for free.

In Spain, some hospitals have computers to access a program of pictograms and icons representing certain concepts. The use of programs of this level can also help people with hearing loss, especially when they are in a hospital environment unable to use their hands to hold signs.

Happ and Paul report some low-cost devices to assist alternative and augmentative communication as, for example, a variety of communication boards or communication frames (with pictures, words, complete sentences, alphabet, and combinations).
Category 2: professional training

For the health professional, the establishment of an effective communication enables providing quality and humanized care. Trigueiro, Silva, Freitas et al.31 highlight that the knowledge on communication subsidizes the healthcare practice, contributing to its quality and allowing the interaction between future professionals and this clientele.

Thus, when health professionals are faced with clients with hearing disabilities they must develop strategies to overcome the difficulties in communication, allowing their interaction with the patients.

Although assistance to the deaf is sporadic, there are many barriers found in assisting this type of client. Skills for working with people who do not share the oral language and present particularly different culture are not routinely taught. Therefore, professionals may not be prepared for meeting with the deaf patient7.

The lack of professional training was cited in many studies as a major reason for difficulties in providing professional care to the deaf. The articles showed that the acquisition of skills for establishing an effective communication during the academic training is deficient and, in turn, pointed out that health services are careless about encouraging and promoting training and capacitation courses.

The development of skills aiming at the development of effective communication must be present in the professional training. The professional with this profile will be able to deal with the various limitations found in the communication with the deaf and can, therefore, understand the information provided, and provide appropriate information.

Category 3: the relationship between the health professional and the deaf

The third category describes the professional experiences with the deaf. Health professionals usually experience feelings of frustration, powerlessness, and impatience when interacting with the deaf that results from failing to maintain an effective communication through sign language.

The study by Chaveiro, Porto and Barbosa28 points out that deaf patients use the health system unlike non-deaf patients; there are reports of fear, mistrust, and frustration. In this study, the researchers point out that the presence of interpreters, the use of pictures, drawings, and non-verbal expressions improve the quality of health care.

The difficulty encountered by health professionals to come across with the hearing impaired is evidenced by the authors who have excelled in this category with a negative influence on care established by these professionals. Deaf people have difficulty in receiving proper care, and this is due mainly to the lack of preparation, impatience, and lack of understanding of the language used by this population.

The articles point out that the grace period for the use of LIBRAS, on the part of health professionals and non-verbal communication, tilts their relationship with the deaf to increased distance and lack of personal interaction.

Pagliuca, Fiuza, and Rebouças16 conducted a descriptive exploratory study that highlighted insecurity in the relationship of health professionals with deaf people by not knowing the language used by them, for not having the skills for the transmission of information about their health, for having a deficiency in academic training, and for being
inexperienced. The nurses reported feeling blocked, distressed, and anguished in the communication with the deaf.

The difficult communication between the deaf and health professionals is clearly perceived when they seek health care. Constraints to adapt to the system are strong, and when they fail, they are absolutely excluded. The need of the deaf for being understood by health professionals becomes visible in their reports. The lack of LIBRAS interpreters is a barrier in health institutions in Brazil, which makes the lives of people with hearing loss, seeking assistance or requesting help in these institutions, even more complicated. 

Category 4: suggestions for the improvement of professional communication with the deaf.

To overcome the difficulties in communication during the provision of care, the studies suggest solutions and differentiated conducts. The study by Chaveiro, Porto, and Barbosa cites that the nonverbal language is a communication resource that needs to be known and valued in the practice of health actions. Even if the language of signs is not known, it is essential to interpret it’s supra segmental aspects that include gestures and facial and body expressions.

The research suggests that mainly academic institutions should create opportunities for studies about health care issues related to the deaf patient, recognizing that dealing with a deaf person implies not only observing the hearing deficit but also their socio-cultural and legal aspects.

It is crucial that the health professional becomes familiar with the culture and language of the deaf community to promote interaction by reducing the discomfort in both sides during assistance.

Professional training is paramount to ensure adequate assistance to this clientele and guarantee proper communication. Barbosa, Oliveira, Siqueira et al. show that the lack of knowledge in nursing school students about communication with deaf clients was one of the obstacles for interacting with them. Thus, some studies suggest the inclusion of mandatory courses dealing with aspects of communication with the deaf.

The learning of LIBRAS by health professionals is cited by many articles. The knowledge of this language would allow the proper care to the patient with hearing impairment.

The inclusion of interpreters during assistance is another suggestion to improve the care from health professionals to the deaf. However, Chaveiro, Porto, and Barbosa show that the role of interpreters can improve but it is not decisive for a quality service. The deaf appreciate the presence of interpreters, but with some caveats: distrust, embarrassment of exposing themselves in front of the interpreter, feeling of pity, and difficulty in finding available interpreters.

The written language could be a way to overcome the difficulty in assisting hearing impaired patients or deaf people who communicate orally, but this is inappropriate for individuals who became deaf before the acquisition of the oral language and learned LIBRAS as their first language. For these people, Portuguese is a second language, and as with any foreign language, its learning is hard.
CONCLUSION

Considering that communication by means of spoken language is ineffective, the revision of the selected articles showed that the communication with deaf people is a challenge for professionals. Facing the existing barriers, it is essential that both parties find ways of interacting ensuring quality in the assistance.

Nurses should evaluate each deaf client as an individual that possesses specific communication needs. Some are great in Portuguese and thus, the writing would be the choice for interaction, not so for others. Some can lip read whereas others feature immense difficulty. Hence, there is a need for discussion about choices for each deaf person to improve the understanding for both sides, achieving an effective care.

It is always good to have in mind that the patient with hearing loss presents only one limitation in verbal communication, but he is subjected to the dynamics in the health-disease process like any other listener. Thus, there are simple measures that ensure the communication between the deaf and professionals. However, they are not always considered relevant such as how to avoid peripheral venipuncture in the hands, ensure adequate brightness in the environment, avoid placing the professional or interpreter against direct lighting sources because this impairs the visualization of signs and lip reading by the deaf, speak directly to the deaf without modifying the position of the head, with normal mouth articulation, and avoid visual barriers during procedures. These are fundamental acts that guarantee the confidence of the deaf person on the team.

Another important point is the need for understanding the deaf community, in particular their culture. Thus, the nurse should develop cultural competence in nursing, promoting a specific care inherent to the culture of the deaf community based on effective communication.

For this to happen, the approach to disciplines that address the care in undergraduate courses is needed through the creation of disciplines that focus on non-verbal communication and, above all, disciplines with a specific approach focused on deafness in different areas of health with its complexities, procedures, and specific signals. This movement is necessary for the popularization of the deaf culture and a victorious confrontation over the existing communicational barriers.
REFERENCES

17. Lieu CC; Sadler GR; Fullerton JT; Stohlmann PD. Communication strategies for nurses interacting with deaf patients. Medsurg Nurs. 2007 Aug; 16(4):239-45.
31. Trigueiro Filho, EPS; Silva, JPG; Freitas, FFQ; Alves, SRP; Costa, KNFM. Perception of nursing students on the communication with people with visual and hearing disabilities Journal of Nursing UFPE on line [JNUOL / DOI: 10.5205/01012007] [serial on the Internet]. 2013 January 26; [Cited 2013 July 9]; 7(3):[about ## p.]. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/3577

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