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CLINICAL CASE REPORT ARTICLE

ALTERED SENSORY PERCEPTION: HEARING - AN ACCURATE DIAGNOSIS FOR NURSING CARE?

PERCEPÇÃO SENSORIAL ALTERADA: AUDIÇÃO - UM ACURADO DIAGNÓSTICO PARA O CUIDADO DE ENFERMAGEM?

PERCEPCIÓN SENSORIAL MODIFICADA: AUDIENCIA - UN DIAGNÓSTICO PRECISO DE CUIDADOS DE ENFERMERÍA?

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ABSTRACT

Objective: addressing the nursing diagnosis of Altered Sensory Perception: Hearing, which was removed from the taxonomy II of NANDA-I. **Method:** clinical case report of a patient with auditory perceptions disturbed who underwent a cochlear implant (CI). It was performed a literature review about the subject and was discussed the importance of considering this diagnosis in the patient's care, using standardized nursing languages NANDA International (NANDA-I), the Results of Nursing Classification (NOC) and the Nursing Interventions Classification (NIC). **Results:** this study resulted in the following research question: "If the diagnosis of Altered Sensory Perception: Hearing is the diagnosis itself, an etiology or a defining characteristic?" **Conclusion:** more researches are needed to clarify what is the best nursing diagnosis for patients with hearing loss and impaired communication. **Descriptors:** Nursing Process; Nursing Diagnosis; Hearing Loss; Communication Barriers.

RESUMO

Objetivo: abordar o Diagnóstico de Enfermagem de Percepção Sensorial Alterada: Audição, que foi retirado da taxonomia II da NANDA-I. **Método:** relato clínico de um caso de paciente com percepções auditivas perturbadas que se submeteu a um implante coclear (IC). Foi realizada uma revisão de literatura sobre o assunto e se discutiu a importância de se considerar este diagnóstico no cuidado de paciente, utilizando como linguagens padronizadas de enfermagem a NANDA Internacional (NANDA-I), a Classificação dos Resultados de Enfermagem (NOC) e a Classificação das Intervenções de Enfermagem (NIC). **Resultados:** este estudo resultou da seguinte questão de pesquisa: "Se o diagnóstico de Percepção Sensorial Alterada: Audição é o próprio diagnóstico, uma etiologia ou uma característica definidora?" **Conclusão:** mais pesquisas são necessárias para esclarecer qual é o melhor Diagnóstico de Enfermagem para pacientes com perda de audição e comunicação prejudicada. **Descritores:** Processo de Enfermagem; Diagnóstico de Enfermagem; Perda Auditiva; Barreiras de Comunicação.

RESUMEN

Objetivo: acercarse del Diagnóstico de Enfermería de la Percepción Sensorial Alterada: Audición, que fue retirado de la taxonomía II de la NANDA-I. **Método:** reporte clínico de un caso de un paciente con percepciones auditivas perturbadas que se sometieron a un implante coclear (IC). Una revisión de la literatura acerca del tema se llevó a cabo y se discutió la importancia de considerar este diagnóstico en la atención al paciente, utilizando como lenguaje estandarizado de enfermería la NANDA Internacional (NANDA-I), la Clasificación de los Resultados de Enfermería (NOC) y la Clasificación de las Intervenciones de Enfermería (NIC). **Resultados:** este estudio dio lugar a la siguiente pregunta de investigación: "¿Si el diagnóstico de Percepción Sensorial Alterada: la Audición es el propio diagnóstico, una etiología o una característica que define?" **Conclusión:** se necesita de más investigaciones para aclarar lo que es el mejor diagnóstico de enfermería para los pacientes con pérdida de audición y comunicación reducida. **Descriptor:** Proceso de Enfermería; Diagnóstico de Enfermería; Pérdida de la Audición; Barreras de Comunicación.

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INTRODUCTION

The cochlear implant (CI) refers to the insertion of a bilateral hearing prosthesis in the inner ear of patients with sensorineural hearing loss. The CI is performed on patients whose hearing deficiency responds to use a conventional hearing aid. The implant helps patients to detect the environment, high-frequency sounds and speech. Studies conducted at a university hospital in southern Brazil showed the safety and effectiveness of CIs, and their results showed that these implants are a safe alternative for patients with total hearing loss, without presenting major complications.¹

Candidates for CI are, in most cases, children under one year of age and are chosen after careful consideration, including otologic history, physical examination, audiometry and psychological and radiological examinations. Although most candidates for this procedure are children, adults can also have benefit from CI in selected cases. These situations include profound bilateral hearing loss, inability to hear and recognizing speech with hearing aids, an indication that the hearing may bring a better quality of life for the patient, and there are no medical contraindications for general anesthesia.

The effectiveness of CI in adults has been widely discussed in a systematic review, whose authors addressed the clinical and cost effectiveness of this procedure in severely profound hearing loss in adult patients.²

This study presents a case report of an adult patient who was been admitted to a university hospital in southern Brazil and underwent CI surgery. Thus, it is expected to demonstrating how the terminology nursing NANDA-I,³ NOC,⁴ and NIC,⁵ was used in the care plan to the patient and discussing the accuracy of the diagnosis of Nursing Disturbed Sensory Perception: Hearing on Taxonomy II of NANDA-I.³

METHOD

This is a descriptive study, which uses a case study to addressing critical thinking and discussion about the use of the Nursing Diagnosis of Disturbed Sensory Perception: Hearing.

Case studies have been adopted in other studies in order to addressing the lack of available literature, as well as representing the best evidence for the application of nursing process in clinical practice.⁶

The study patient is female, 35 years old, with sensorineural nonspecific hearing loss. She was admitted to a university hospital in southern Brazil for the surgery of a cochlear implant (CI). On the day of her admission to the unit before surgery, the patient's subjective data were collected through information given by her mother, fundamental to nursing assessment. This informed the nursing team about her hearing loss; partial loss, which began in childhood and gradually increased until complete hearing loss, in 2008. It was not reported drainage from the ear, pain and associated factors, as well as of previous ear surgery. The ability to read lips was developed during high school; however, the inability to listening interferes in the relationships with friends, family and especially with her two sons. The total hearing loss influenced negatively in communication with others, significantly impairing her welfare.

After hearing loss, communication with people has become unviable without the aid of the mother, companion in all her visits to the doctor. From this problem, it also started to isolate herself from people nearby. During hospitalization, the mother remained constantly with the patient and was considered the link between the daughter and the health team. Although the patient was able to read lips, this demonstrated great difficulty expressing their feelings and

thoughts when in the absence of her mother. Moreover, it was reported that stressful situations often hindered the ability to decipher lip reading or gestures. Thus, it was determined that the patient would no longer be able to live independently.

The patient and the family reported that the treatment of bilateral hearing loss was being performed in the outpatient clinic of the hospital since 2008, with the possibility of receiving a CI. To be included in this program, the patient underwent medical, socioeconomic, psychological and interview evaluations. To meet all criteria of the program, she became a candidate for CI operation, surgery scheduled for September 2009.

On physical examination, the day before the surgery, both ears were described as having equal size and appearance, flushed skin, no nodules and no pain to palpation. However, showed changes in sensory acuity, the ability to solve problems, the pattern of behavior in response to normal stimuli and impaired communication. When being interviewed, changes in communication skills, including difficulty understanding their own voiceover regular partner, being awkward to verbally express her feelings or form words and sentences perceived. Verbalized the instructions were understood by the nurse slowly, through lip reading.

Preoperative care was instructed by the nurse and the patient was able to understand with the help of her mother. However, it was difficult for the team to understand the patient's questions and thoughts about the surgical procedure. On the day of surgery, after the procedure in the operating room, she was transferred to the recovery room, and after the unit intraoperative. Through gestures, it was possible for the patient demonstrating her feelings; when asked about the presence of some feeling, she pointed out "yes" with her head. The patient was treated

with analgesics and antibiotics; care such as changing dressings ear were not performed by the nursing staff, restricted activity by institutional protocol to the doctor for ear surgery.

After five days of hospitalization, she was discharged on the condition of return to the hospital for outpatient appointments with the doctor, and later for professional phonetic, aiming to starting the process of learning and use of the CI. She was very hopeful about the possibility of rehabilitation of hearing and satisfied with the received nursing care.

RESULTS

◆ Nursing diagnosis

The signs and symptoms presented by the patient set the primary nursing diagnosis for the case. The examination suggested Altered Sensory Perception: Hearing, defined as a change in the amount or pattern of stimuli being received, accompanied by diminished, exaggerated, distorted, or impaired response to such stimuli.³ The diagnosis was selected based on the following defining characteristics: change in ability to solve problems, changes in behavioral patterns, changes in usual response to stimuli and impaired communication.

University hospital in the field of study, the nursing process was developed from the theoretical framework of the basic human needs of Wanda Aguiar Horta.⁷ Wanda Horta, based on her work about the theory of human motivation and Maslow's classification of needs Mohana, divided into three hierarchical levels: psychobiological, psychosocial and psychospiritual. This theorist introduces subgroups at each level of needs, which were adjusted for the usage patterns in the practice of nursing care. For example, in the group of psychobiological needs, there are many subgroups, such as nutrition, oxygenation, elimination, neurological, sense

organs and senses, all based on basic human needs.

Nursing diagnosis assigned to the patient belongs to the first hierarchical level of human needs, the psychobiological, and the subgroup perception of organs and senses. The Nursing Diagnosis Altered Sensory Perception: Hearing, the multiaxial system of NANDA-I Taxonomy II is located in Domain V - Perception / Cognition, Class III - Sensation / Perception.³

♦ Nursing classification of the results

To complete this nursing diagnosis proposed two results were used by the NOC. Firstly, the behavior of Compensation Hearing result, located on Domain Knowledge and Behavior Health, Health Behavior class selected indicator for this result was lip reading, starting with 2 (rarely shown), with the goal of increasing to 4 (often shown). Secondly, the result Communication: Receptive located in physiological health and Class Neurocognition. This result was selected the Interpretation of Language Nonverbal indicator, starting from 1 (substantially compromised) with the aim of achieving 4 (slightly impaired).^{0,4}

♦ Nursing interventions classification

In the nursing care plan, nurses consider the nursing diagnosis to NANDA-I and relate them to the NIC interventions, making use of clinical judgment.⁵ Furthermore, it is important to consider and measure proposed nursing results.

The selected as the most likely to achieve these outcomes and address the nursing diagnosis intervention was Improves Communication: hearing loss defined as assistance in accepting and learning alternate methods for living with diminished hearing. This action belongs to the Domain Class Improved Communication Behavior.

Additional limitation of nursing activities were give a simple command at a time; listen carefully; face the customer directly; speak

slowly, clearly and concisely; use simple words and short sentences, if necessary; to speak, not to cover his mouth, not be with your mouth full or chew gum; get the patient's attention through touch. An activity that was used was totally legitimate understanding of messages asking the patient to repeat what he was told. In this activity, specifically, the nurse asked the patient to signal "yes" or "no" with her hand or her head, when asked. Another activity was used communication through the use of paper, pencil or computer when needed. Nurses made use of institutional illustrative material to specify the instructions.

On the first day after surgery, the patient was very confused as to the instructions and little understood the guidelines nurse. The nursing staff began to speak more slowly and directly in front of the patient and then the instructions came to be better understood. The patient demonstrated understanding of the questions in nursing and began to manifest their symptoms on the surgery procedure with gestures. The responses of the patients required the guidance of intensive instruction, dedication and time nursing team. The patient was offered a pen and paper to write what I was feeling, but she was tired with pain, dismissing this tool.

Importantly, the patient had only recently lost your hearing altogether and before that loss, was not fitting as necessary tools of communication. As a result, she had not developed a communication standard specified earlier, although it was able to read lips since childhood. Her mother accompanied her daughter throughout the period of hospitalization and was identified as a liaison between patient and health care team.

On the second postoperative day and the day before discharge, she was happy with the help of nursing and demonstrated interest in communicating with the team again. Care recovery were instructed, and the instruction

plan that was initiated on the first day of hospitalization. During his recovery process, both directions of nursing regarding communication procedures have become easier.

DISCUSSION

The patient and her mother returned home on the fifth postoperative day with instructions for home care which includes care at the surgical site, a schedule for medical appointments and instruction to return to the emergency room occurrence of any complication related to the surgery. The orientation was partially understood, and sometimes her mother gestured for her the instructions given by the nurse. The patient had a paper, a pen and gestures to show her feelings and complaints, although her mother still helped.

For both outcomes, it was proposed by the nurse, Behavior Compensation Listening and Communication: Receptive, the patient reached the proposed increase of the score from 2 to 4 after the implementation of nursing interventions goal. A score of 5 was not achieved; it was still need the help of his mother to the understanding of some postoperative instructions.

When analyzing the results and proposed interventions implemented as well as the consequences of bilateral hearing loss for the patient, this study raises the question: if the nursing diagnosis used Altered Sensory Perception: Hearing is the diagnosis itself, etiology, or a defining characteristic.

The NANDA-I Taxonomy 2012-2014 presents Altered Sensory Perception (specify: visual, auditory, kinesthetic, gustatory, tactile, olfactory) as a diagnostic removed the last edition.⁸ However, in a recent book that shows the connections between the terminology, this diagnosis and its links remain present.⁹ We recommend further studies to search the diagnostic accuracy of

this diagnosis before being resubmitted to the NANDA-I Taxonomy II, as well as its validation. In addition, further research should clarify the need to submit this diagnosis as a single diagnosis in Taxonomy II.

CONCLUSION

Additional studies are needed to corroborate the communication barriers related to hearing loss, which can direct to the accurate diagnosis for this particular hearing problem. However, from this study, it is possible to consider hearing loss as a defining characteristic of the diagnosis of an Impaired Communication. This possibility is underscored, as clinical experience with these patients shows that the majority of care provided by nursing aim to solve the communication problem detected during hospitalization, considering the loss of a factor not a priority hearing.

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