Care Technology Used by Nurses in the Mental Health Services: Integrative Review

REVIEW

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Abstract

The importance of knowing the technologies used in mental health services and the urgency of their recognition for the development of psychiatric nursing care is highlighted in the scientific literature on care technologies.

Objetive: To know the types of technologies that nurses have developed or used in mental health care services.

Method: Literature integrative review carried out in the databases BDENF, LILACS, SciELO, PubMed, and MEDLINE, using the nursing keywords, health technology, and psychiatric nursing. There were 16 articles selected, included in the period 2000 to 2015.

Results: It was identified that in psychiatric nursing care, there are two types of technologies used: soft and soft-hard with emphasis on the soft technology. As soft technologies, there is health education of the patient, bond, care, therapeutic groups and qualified listening. As the soft-hard technologies, there are home visits, medical care, nursing process, nursing care management and nursing process.

Conclusion: It was concluded that the care technologies are a reality in nursing care practice, experiencing the challenge to keep up with the technological development without neglecting the ethical and humanitarian aspects intrinsic to the profession. It was realized the care improvement in the area of psychiatric nursing provided by the technology care.

Introduction

The Brazilian Psychiatric Reform is a reality that has aroused reactions and attention of the society with a continuous effort to bring about social changes in dealing with madness and understand it as a life phenomenon [1]. It is based in the United States and Italy deinstitutionalization concept and today it is discussed as part of health policies. It is sought to deconstruct the asylum logic of exclusion for new strategies of care to the subject in psychological distress. Currently, these concepts are evident in politics, legislation and care services to mental health in Brazil, [2].

Replacing the asylums, the Centers for Psychosocial Care (CAPS) were created, regulated by Ordinance 336/GM of 19 February 2002, by the Ministry of Health. Entitled as open mental health services, the CAPS break with the hospital paradigm and medicalization of madness and begins to promote the reintegration and psychosocial rehabilitation, recovery of autonomy and citizenship guided the entirety of devices present in psychiatric nursing actions.

Therefore, the Nursing care is undergoing a transformation process, and its challenged is to contribute to the change of the model asylum paradigm promoted by the psychiatric hospital for the psychosocial model. In this context, the current nursing practice in mental health is guided by the notion of care, as a complex and comprehensive action, which hosts the needs and subjectivities of each individual [3].

Care involves and develops actions, attitudes and behaviors that are based on scientific, technical, personal, cultural, social, economic, political and bio-psycho-spiritual knowledge, which seeks the promotion, maintenance and/or recovery of health, with dignity and wholeness humanity [4]. Psychiatric nursing care should have a technical-scientific basis, without losing the essence of humanization, observing the individual in full. The assistance provided to this population uses health care technologies in the work process.

The technology is the set of knowledge and assumptions related to methods, materials and products guiding the health care and work process, enabling the nursing practice, that is, developing nurses in a critical and reflexive way during their professional exercise [5]. The technologies can be classified into three categories: soft, which are the relationships and bonds; the soft-hard that they are the structured knowledge (theories); and the hard technologies that they are the material resources and equipment [6].

In the meantime, nursing care should seek to harmonize these three dimensions of technologies, which are crucial to the quality of care. In this perspective, the importance of production technology for innovations in health care and especially in psychiatric nursing are highlighted since it helps the organization of mental health services, forms of care which establish and innovates the professional practice [7].

Given the responsibility of the nurse together with the patients of the mental health services and knowing the complexity and specificity of psychiatric nursing care, this study has the objective to identify the scientific publications on the types of technologies that nurses have developed or used during care in the mental health services.

This study becomes relevant to psychiatric nursing by providing grants for clinical practice and highlights the need for reconstruction of a care model that aims care in all its magnitude.

Method

This is an integrative review method that aims to integrate and synthesize the literature results and evidence from studies directed to particular topic or research problem, from independent studies. [8]

To operationalize this review, the following steps were followed: selection of the problem or research question; literature search, which included the definition of inclusion and exclusion criteria of the arti-

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cles; evaluation of data to establish the information to be extracted from selected articles; interpretation of results; synthesis of data and presentation of the review. [9-10]

The literature search took place from October 2015 to January 2016, through the following databases: PUBMED, ScienceDirect (Elsevier), Medical Literature Analysis and Retrieval System Online - MEDLINE Complete (EBSCO), LILACS (Latino-American and Caribbean Health Sciences Literature), Scientific Electronic Library Online (SCIELO) and Bank of Nursing Data (BDENF).

The keywords used were: nursing care, health technology, and psychiatric nursing. The literature research was structured in three combinations: nursing care and health technology, nursing care, and psychiatric nursing and health technology and psychiatric nursing. In a second stage of the research through these keywords, it was proceeded to the critical analysis of the studies, excluding those not consistent with the criteria and the proposed research, as well as duplicate productions.

The inclusion criteria were defined as articles that addressed the proposed objective and published in the last 15 years (2000-2015), available electronically in full, classified as the original article, published in any language. Editorials, letters to the editor, works published in event annals, reflection articles, experience reports, duplicate publications and studies that did not address themes relevant to the review objective were excluded.

Results

The synopsis of data about the findings by searching studies in the databases above, considering a combination of keywords, inclusion/exclusion criteria, and methodological variables are described in **Table 1**.

The literature review totaled 3,475 articles available in the six databases across the three mentioned combinations, as shown in **Table 1**. Following the exclusion criteria (temporal dimension, text not available in full, dissonant thematic and/or not answering the guiding question and duplicate studies), there were 149 studies remaining. They were analyzed to qualify them meeting the review objective to incorporate them into the scope of this article. Thus, there were 16 articles identified and included.

Table 2 shows data of studies presented according to the journal, year of publication, article title,

Table 1. Distribution of selected studies in the literature review, according to databases and inclusion/exclusion criteria, Natal-RN, Brazil. 2016.

Database	Combinations			Exclude/ Duplicated	Selected	Included
	1[a]	2[b]	3[c]			
MEDLINE	213	342	9	562	32	02
LILACS	116	58	6	176	17	04
PUBMED	1446	1069	35	2548	62	02
SCIELO	1	22	-	20	10	03
BDENF	80	74	04	153	28	05
Total	1856	1565	54	3459	149	16

[a]: Nursing care and health technology. [b]: Nursing care and psychiatric nursing. [c]: Health technology and psychiatric nursing.

Table 2. Distribution of the articles, according to the year of publication, title, and objective. Natal-RN, Brazil. 2016.
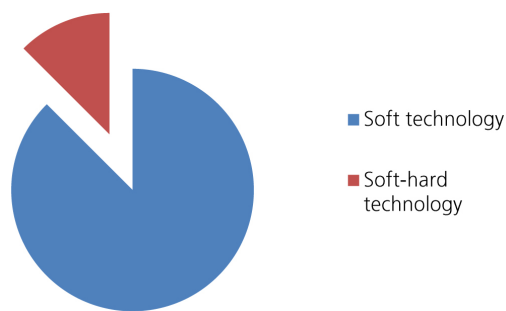
N°	Journal/ Year	Title of the article	Objective of the study	Results	Classification Of The Care Technology
1	Revista eletrônica de enfermagem/ 2006	Repercussions of community therapy in the daily lives of its participants.	Knowing the repercussions of the Community Therapy in the daily lives of people, residents of the street community.	Community Therapy (CT) used as suffering overcoming care technology, favoring the strengthening and/or building links and social area.	Soft Technology

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N°	Journal/ Year	Title of the article	Objective of the study	Results	Classification Of The Care Technology
2	Revista Anna Nery/2002	Creative practice of psychiatric nursing: factors involved in its development.	Analyzing the factors involved in the development of creative practice in psychiatric nursing based on the socio-poetics approach.	Intersubjective care process.	Soft Technology
3	Revista de Escola de Enfermagem da USP/2007	Innovative practices for health care.	Reflecting on care in psychiatric nursing and mental health area.	Dialogue, creativity, bond, and host.	Soft Technology
4	Revista de Escola de Enfermagem da USP/2002	Contradictions in speech and practice of nursing in mental health day services.	Describing the concepts of how nursing work processes is promoted in mental health services.	Guidance actions for self-care	Soft Technology
5	Jornal Psychiatr Ment Health Nurs/2003	Patients' conceptions of how health processes are promoted in mental health nursing. A qualitative study.	Describing the activities of nurses focusing on the care and the mentally ill patient.	Drug treatment, psychotherapy, and different self-care workshops.	Soft Technology
6	Rev. Latino-Am. Enfermagem 2003	The nurse in the mental health team - the CERSAMS case of Belo Horizonte.	Reflecting on the nurse's performance from new attitudes and new proposals for work in assisting the patient in the Psychosocial Care Center.	Use of creativity and innovative instruments (therapeutic activities) in professional practice.	Soft Technology
7	Rev. Latino-Am. Enfermagem 2003	Nurses' performance in psychosocial care centers historical implications of psychiatric nursing.	Presenting some considerations on the use of soft technologies, such as group activities and reception of patients, offered in Psychosocial Care Centers (CAPS).	Forming groups to perform therapeutic workshops.	Soft Technology
8	Revista da Rede de Enfermagem do Nordeste – Rev. Rene/2009	The (re) invention of technologies in the context of psychosocial care centers: reception and group activities.	Analyzing the practice of nurses in Open Mental Health Services of the South and Southwest of Minas Gerais.	Individual approach and differentiated assistance for general care, medication administration and home visits.	Soft Technology
9	Revista Mental/2008	The psychotherapeutic intervention in mental health nursing: Concepts and Challenges.	Promoting and advocating for effective psychotherapeutic interventions, as an autonomous Nursing intervention.	Psychotherapeutic interventions.	Soft Technology

N°	Journal/ Year	Title of the article	Objective of the study	Results	Classification Of The Care Technology
10	Revista Portuguesa de Enfermagem de Saúde Mental/2014	Doings of nurses at a psychiatric hospitalization unit of a university hospital.	Identifying the doings of nurses at a psychiatric hospitalization unit at a university hospital.	The results show the understanding of new concepts that guide mental health care, in which host, full and individual care and consideration of the subjectivity of the patients guide this practice.	Soft Technology
11	Rev. bras. Enferm/2011	The role of art in psychosocial care centers – CAPS.	Artistic approach in care developed in Psychosocial Care Centers.	The art-based activities are used for the psychosocial rehabilitation.	Soft Technology
12	Rev. bras. Enferm/2003	Therapeutic workshops for healthy lifestyle habits: an experience report	Subsidizing a theoretical and critical reflection on the principled and practical approach to therapeutic workshops and health education.	It is observed that the contemplation of these perspectives allows the perception of singularities and life histories of individuals with mental disorders.	Soft Technology
13	Revista Anna Nery/2010	Emergency mental health: the practice of nursing staff during the hospitalization.	Knowing how to develop nursing practice in emergency situations to inpatients.	In nursing care, the importance of dialogue is needed as the first intervention by the person who needs emergency care.	Soft Technology
14	Rev. enferm. UERJ/2008	Painting new paths: the home visit in mental health as a nursing care instrument.	Analysis of household daily psychiatric patient discharged from the hospital, through home visits.	Home visits showed the importance of family participation and the subject in a continuous process of care, allowing the nurse to build a creative, supportive and sensitive care, which allows the subjects new contracts with life.	Soft Technology
15	Revista Anna Nery/2008	Nursing practice in open mental health services.	Examining the characteristics of the nursing work on a inpatient psychiatric unit.	Assistance focuses on the clinical model/ protocol.	Soft-Hard Technology
16	Rev. Enfermagem. UERJ/2008	The nursing work process in the psychiatric inpatient unit.	Identifying interventions that nurses currently use in psychiatric home care.	Nurses use a wide range of interventions such as consultation, visit and deal with therapeutic activity.	Soft-Hard Technology

Source: Database of the authors (2016).

Figure 1: Quantity of articles for each technology used by nursing care in mental health care services. Natal - RN, Brazil, in 2016.

the purpose of the study, results and care technology classification used in nursing care.

For the years of publication of articles on this study, it was found that in the period studied, 2003 (18.75%) and 2008 (18.75%) stood out with the highest quantitative research with three publications each. It is important to highlight national and international journals with the school Journal of Nursing Ana Nery highlighted with three publications (18.75%).

Analyzing the use of care technologies in psychiatric nursing care, there was a predominance of soft technologies, addressed in 14 (84.5%) publications, followed by soft-hard technologies, as outlined in **Figure 1**.

The theme analysis enabled categorize, interpret and group similar data. Thus, the group allowed the synthesis of knowledge covered in the literature, divided according to the care technologies used by nurses in mental health services.

Discussion

There was an increase in publications over the years related to the use of care technologies in the health-care practice of psychiatric nursing in the years analyzed. In the process of the nursing work, there were important care joints through the use of the technologies.

Technology in Nursing is a set of systematized knowledge (scientific and empirical), in a constant process of innovation, which is applied by the nursing professionals in their work process to reach a goal permeated by reflection, interpretation, and analysis, and it is subsidized by their professional and human experience. The characteristic of technology in nursing is not generalized peculiar behavior, so it is adapted to the different situations to provide an individual and proper care to the individual [11].

The psychiatric nursing through the creation of new facilities in mental health and (re) integration of mental health services in the public health service acquired new approaches, new principles, values and looks to people in psychological distress [12]. Thus, it boosted most appropriate ways of care to madness in the family, social and cultural of the individual.

In the analyzed studies, the use of two types of technologies predominated, the soft and soft-hard technologies. However, the soft technology, which is the technology of interrelationships was more present in the selected studies of this review.

Soft technology to promote psychiatric nursing care

The establishment of human relationships is imperative when it comes to mental illness. The support in the therapeutic monitoring involves not only a set of nursing techniques but care production from the subjectivity and uniqueness of the individual [13].

In the context of mental health, the relationship between professional and individual is permeated by access, bond, and subjectivies, and the nurse works the autonomy of those who are being taken care. With this, the psychiatric nursing integrates the act of caring related to the different forms of interaction with the patient [14].

The mental disorder affects the patients´ quality of life and the family, compromising the mental health of all its members, who are exposed to daily contact with the unpredictable behavior of the patient.

The caring practice implemented by the nursing staff in mental health search interdisciplinarity in the actions developed in the health-disease process. In this context, nursing within its range of action on health promotion has sought new directions for the care becomes alive and human and thus more effective.

The soft technology development in psychiatric nursing care allows solving everyday problems sometimes imposed by the psychiatric diagnosis, so the nurse seeks a new point of view as a way that allows the (re) integration in the community.

The psychiatric therapeutic environment that most develops soft technology in Brazil is the Centers for Psychosocial Care through individualized therapeutic singular projects that include clinical care associated with psychotherapeutic treatment. Therapeutic workshops are included in the psychotherapy, which contributes to the search for alternatives to recover the well-being of each to recover that mental health becomes a human being worthy to return to live in society. In this therapeutic environment, art is used in its various expressions, although in some cases the ownership of their conceptual field by mental health technicians are still incipient [15].

In studies [16, 17, 18, 19, 20, 21, 22] addressing the soft technology, group work, and the therapeutic workshops were the most cited strategies and aimed mainly at the production of new alternatives to develop care psychiatric nursing. In this case, the systematization of nursing care values the biopsychosocial influences on the process of disease and provide appropriate conditions for the development of new humanistic practices, critical and reflective in mental health services.

Soft-hard technology to promote psychiatric nursing care

Regarding the studies [23, 24] using the soft-hard technology, there is the nursing consultation and the use of the clinical protocol. Structured knowledge organizes knowledge, professional practice and recognize the biological determinants of mental illness in this care reality through institutionalizing practices.

The development of the nursing consultation and the use of protocols are also present in the systematization of care in mental health services, assignments supported by the policy.

Nursing professionals perform activities such as group assistance in psychotherapeutic workshops and individual consultations such as nursing consultation in psychiatric nursing, administering medications, checking vital signs, guidance and supervision of hygiene, the use supervision of the drug with correct dose and schedule, screening, care, observation, psychiatric clinical events, when necessary there is accompaniment hospitalization to the general hospital for the patient if having a crisis or freak out beyond the systematization of the nursing process (development and participation in the construction of individualized treatment plan).

The use of soft-hard technology by nurses in mental health services provides a context of transformation of psychiatric care and has sought the reversal of knowledge about the body to enhance the knowledge on the subject, based on the criticism of crystallized structures knowledge and building new possibilities for action, centered on the principle of horizontality, autonomy, temporality, needs, desires, exchanges and possibilities. [25]

Conclusions

Observing the implementation of care technologies use in the area of psychiatric nursing is not an assertive away from our reality. Numerous studies have reported technological incorporations in care nursing practice, and literature review helped to check such aspects.

The aware use of certain technology should be emancipatory, designed and realized by a set of assumptions articulated that allow nurses to freedom

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and autonomy, and the individual is a subject to his care process a citizenship perspective.

Studies report care technology incorporations in care nursing practice in mental health services and this review allowed to establish these facts. It was observed in the selected articles, the use of soft and soft-hard technology and it also reveals the concern of psychiatric nurses to provide more targeted and effective assistance respecting the unique needs in the bio-psycho-socio-cultural perspective of the individual.

Nurses must take new tools that can contribute to the success of the therapeutic process of the patients in the mental health services, and so every day seek to reframe the nursing practices in Psychiatry and develop technologies that reach effectively more people and a better possible way. Understanding the influence and significance of technology has an extraordinary importance, especially because it influences a contemporary care practice aimed at an innovative and generator of a conscious and deliberate practice.

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