Material world and social recognition: Nursing care in Spain (1855-1955)

Objective. This study sought to recognize the active and symbolic role played by the objects from the material world for nursing care in Spain between 1855 and 1955. Methodology. This was a historical study using grounded theory procedures. The information sources were eight handbooks for the training of caring professionals published in Spain, during the period of interest. The information was gathered from March 2012 to June 2013. During this period, the sources were fully revised and index cards with bibliographic information, description of instruments, and analysis were elaborated; methodological and analytic memoranda were written. Forty-five procedures and 360 material objects were registered. Results. The categories “principal and secondary objects” and “guarded objects” reveal the influence exerted by the objects from the material world for care. Conclusion. In Spain, between 1855 and 1955, nursing care was carried out within a scenario comprised of objects with secondary status and situated within the periphery of care, as well as by guarded objects that professionals could not use. This material world influenced the social recognition of professional caregivers at the time and the visibility of their work.

Key words: history of nursing; working environment; social desirability.
información bibliográfica, de descripción de instrumentos y de análisis. A su vez, se escribieron memorandos metodológicos y analíticos. Se registraron 45 procedimientos y 360 objetos materiales. Resultados. Las categorías “objetos principales y secundarios” y “objetos custodiados” revelan la influencia que ejercían los objetos del mundo material para los cuidados. Conclusión. En España entre 1855 y 1955, los cuidados de enfermería se daban en un escenario conformado especialmente por objetos con estatus secundario y situados en la periferia de los cuidados, como también por los objetos custodiados que los profesionales no podían usar. Este mundo material influía en el reconocimiento social de los profesionales del cuidado de la época y en la visibilidad de su trabajo.

Palabras clave: historia de la enfermería; ambiente de trabajo; deseabilidad social.

Mundo material e reconhecimento social: os cuidados de enfermagem na Espanha (1855-1955)

Objetivo. Reconhecer o papel ativo e simbólico que jogaram os objetos do mundo material para os cuidados de enfermagem na Espanha entre 1855 e 1955. Metodologia. Estudo histórico que utiliza procedimentos da teoria fundamentada. As fontes de informação foram oito manuais para a formação dos profissionais dos cuidados publicados na Espanha, na época de interesse. A recolha da informação se realizou desde março de 2012 até junho de 2013. Neste período, revisaram-se integralmente as fontes e se realizaram fichas com informação bibliográfica, de descrição de instrumentos e de análises. A sua vez, escreveram-se memorandos metodológicos e analíticos. Registraram-se 45 procedimentos e 360 objetos materiais. Resultados. As categorias “objetos principais e secundários” e “objetos custodiados” revelam a influência que exerciam os objetos do mundo material para os cuidados. Conclusão. Na Espanha entre 1855 e 1955, os cuidados de enfermagem se davam num palco conformado especialmente por objetos com status secundário e situados na periferia dos cuidados, como também pelos objetos custodiados que os profissionais não podiam usar. Este mundo material influía no reconhecimento social dos profissionais do cuidado da época e na visibilidade de seu trabalho.

Palavras chave: história da enfermagem; ambiente de trabalho; deseabilidade social.

Introduction

The material world for nursing care is the world of practice. The material world concept is not new, philosophers, anthropologists, sociologists, and ecologists, for example, have described it as a real, cultural, and social scenario of life. From the sociological perspective, in the material world the actions aimed at objects assign them a meaning. Thus, the material world for healthcare is the social and symbolic scenario of care. During each period, objects available for the social groups are perceived and interpreted and play an active role in the construction of the society where they are manufactured, used, abandoned, and reused, so that the world constructed by tangible objects may be used to legitimize the social order. Material objects are not neutral; they come to us mediated symbolically, even texts and books, and their study helps to understand processes and social relationships.

A study on the history of nursing and technology in North America revealed that the technological objects used by the nurses have a double-edge property. On one hand there is the practical use of the object to satisfy a given patient’s need and on the other hand, the object represents cultural and relational issues of the profession in society, so that the use of a given object influences upon the image and prestige of nursing. Objects have a symbolic meaning and in the interaction with
them, their symbolic meaning influences, in turn, upon those who are using them.\textsuperscript{5} Thus, objects used in the past, even the most common in a society, besides having a practical function, have important symbolic value for their users.\textsuperscript{8}

Nursing professional identity and its naming has motivated conducting historical studies in Spanish nursing.\textsuperscript{9-11} A study points out that the social recognition of practitioners, midwives, and nurses, considered physicians' aides prior to their professional unification by mid 20th century, was conditioned by the formation, techniques, practices, and functions they were given during the assignment of caring for patients. The practitioners closest to the physicians and who performed more complex technical instrumental functions gained greater recognition.\textsuperscript{10} They were males and provided basic areas of medicine that required manual skills.\textsuperscript{11} Likewise, a study highlights social class difference in the professions dedicated to care during the 19th and 20th centuries.\textsuperscript{12} Caring professionals, who were in a process of professional consolidation, were ascribed to that social class due to their work within the middle class, while the medical professionals belonged to the upper class, dominated due to the privileges granted through the legislation at the time.\textsuperscript{12} The sociology of the work has pointed out that the occupations that change their name over time seek to reduce their identification with the prior status; and with the new title they ensure the technological monopoly over the work they carry out.\textsuperscript{13} In 1955, in Spain, the titles and formation of practitioners, midwives, and nurses were unified and they went on to being denominated Technical Health Aides.

Some studies argue that mastering techniques and instruments in nursing practice has been the starting point for the social recognition of the profession and for it to be less subordinated to the medical knowledge.\textsuperscript{14,15} It has also been stated that because of technology, nurses have established relationships of cooperation with physicians and have sought to be socially valued and appreciated.\textsuperscript{16} Nevertheless, in the history of nursing in Spain, the material world care, objects, and their symbolism have not been extensively explored. Although the historical-graphic works have encompassed pre-professionals caregivers and their evolution to the current nursing care models of professionals,\textsuperscript{17-19} there are blank spaces and empty memories.\textsuperscript{20} One of these voids is found when searching for studies on objects, artifacts, apparatus, and technological instruments used by the professionals dedicated to care during their work and the social effect their use has had. In this regard, the period between 1855 and 1955 is complex and interesting to document. During this time, practitioners, midwives, and nurses were dedicated to caring for the sick until their unification under the title of Technical Health Aides in 1955. Currently, these are recognized as precursor figures of nursing.\textsuperscript{18} The publication of the first Health Legislation in 1855 gave way to subsequent health laws, like the Moyano Legislation that legitimized the degrees of Practitioners and Midwives in 1857 and the legal recognition of the nurse degree in 1915;\textsuperscript{18} these laws also motivated choosing this study period. It was considered plausible to find, through the handbooks published for the training of professionals dedicated to care during that time, a material and technological world that had not been recognized or described before. Thus, the purpose of the study was to recognize the active and symbolic role played by objects from the material world for nursing care in Spain between 1855 and 1955 on the social recognition of professionals dedicated to care.

**Methodology**

This is a historical study of nursing and as such it is framed as qualitative research.\textsuperscript{21} Historical studies seek to find sense of the past to report the present and the future.\textsuperscript{21} The historical reference of the symbolic interactionism\textsuperscript{2} and the procedures of grounded theory\textsuperscript{22} have been used to find sense to the data and reveal the relationship of the professionals with the objects for care in Spain between 1855 and 1955.

**Sources.** The sources of information were eight handbooks published in Spain and during the
period of interest (Table 1). Of these handbooks, four were accessible in the Historical Museum of Nursing at Fundación José Llopis in Alicante and four handbooks were found in the library at the Official School of Nursing in Madrid. The handbooks were first purposely sampled. The inclusion criteria were that they needed to be aimed at professionals dedicated to caring for the sick, illustrate the material and technological world available during the time, and describe how to develop the care practices of the time. As the analysis advanced, the selection was theoretical.

**Data gathering.** Collection of the information began in 2012 and ended in June 2013. During this period, the sources were revised fully and index cards were elaborated with biographic information, description of instruments, and analysis; additionally, methodological and analytic memoranda were written. The instruments described in the surgical intervention and natal care handbooks were excluded from the study because these were considered specialized instruments.

**Data analysis.** The analysis was performed manually and concurrent to the information collection, according to the open and focused coding procedures. Writing of analytic memoranda, as well as permanent contact and review of the bibliography available, made it possible to transcend from the description to the interpretation of the data.

### Table 1. Data sources

<table>
<thead>
<tr>
<th>Code</th>
<th>Title of the handbook / Nº Edition</th>
<th>Author / profession</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>Practical handbook on phlebography arteriotomy and other minor surgery operations</td>
<td>Cisneros Avilés, Bonifacio / Physician</td>
<td>1856</td>
</tr>
<tr>
<td>CM 2</td>
<td>Handbook for practitioner use</td>
<td>Calvo and Martín, José / Physician</td>
<td>1866</td>
</tr>
<tr>
<td>GV 3</td>
<td>Handbook for the Practitioner and the Hospital Intern</td>
<td>García Velásquez Jerónimo / Physician</td>
<td>1901</td>
</tr>
<tr>
<td>FC 5</td>
<td>Nurse Teaching Handbook</td>
<td>Fernández Corredor and Chicote, Mariano / Physicians</td>
<td>1917</td>
</tr>
<tr>
<td>LM 7</td>
<td>Handbook for the hospital nurse / 12th Edition</td>
<td>Labré, Marcel / Physician</td>
<td>1937</td>
</tr>
<tr>
<td>BC 8</td>
<td>Practical theoretical handbook for practitioners, Midwives, and nurses I and II / 3rd Edition</td>
<td>Box María Cospedal, Antonio / Physician</td>
<td>1951</td>
</tr>
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</table>

**Results**

This paper reveals the influence exerted by objects from the material world for care upon the social recognition of professionals dedicated to caring for the sick in Spain between 1855 and 1955. This influence is illustrated through the status that the objects had, according to their importance in the procedures and the symbolic meaning attributed, and through the existence of objects the professionals of the time could not use, but rather, safeguard for their use by the physician.

**Hierarchy of objects in the material world: Principal and Secondary**

Objects from the material world for care were granted status according to the symbolic meaning...
attributed to them and were divided into two groups: principal and secondary. Objects entering the care scene, like the actors and actresses in theater, had an assigned role and a degree of importance making them more or less visible and recognizable. Principal objects were those around which the other objects of a procedure were organized. These were objects noted for their use and highlighted, in turn, those using them. These objects were precisely and carefully described in the handbooks. For example, syringes and needles were principal objects in the hypodermic injection, the lancets were principal in the general bleeding, and the scarifier in local bleeding. These principal objects stood out above the rest and were distinguished because of their practical use or because of their technology. These objects were manufactured with a specific function in patient care.

Secondary objects were characterized for being more numerous and easily substituted; they were simple, common, and not very appealing. Their importance was barely visible and was only revealed inasmuch as they favored the use of the principal objects during a procedure, like the alcohol lamps for lighting and buckets and trays to hold other instruments. Unlike the principal objects, their use did not increase the prestige of those using them. These were necessary and useful objects for patient care, but occupied a peripheral location, which is why the handbooks often presented them as ordinary objects, thus, their inferiority was framed with respect to the principal objects, partly due to the function they performed. Hot-water bags, urinals, and spittoons are examples of secondary objects.

The procedure of general bleeding can illustrate the separation of these two types of objects. The object described in all the handbooks with greater precision, which had to be well kept and which was indicated as the most important was the lancet to penetrate and cut the blood vessel. The other objects were organized around the lancet, thus, it had the status of principal object, as highlighted in the following quote: “The lancet is the principal instrument in bleeding” (CM 2:48). On the contrary, the rubber tube or compressor held a more discrete place; it was used to immobilize the blood vessel on the limb that would be punctured along with the vessel that would collect the blood and which permitted calculating the volume drawn. The three objects had to be in the procedure, but the principal object was the lancet and the rubber tube and the vessel were the secondary objects: The necessary instruments are quite limited, just a lancet with short double-edge blade ending in a more or less sharp tip …a bandage or rubber tube is necessary to compress the limb to make the vein turgid …blood is drawn and is received by the graduated vessel (GT 6:213).

Lancets had such previously attributed and important symbolic meaning in the bleeding procedure, given that their use required skills and technical abilities, visible qualities that enhanced the prestige and social recognition of those using them, while strengthening their roles. Although lancets and their use were heightened in the handbooks, against the compressor and the vessel, all the objects were important during the execution of the procedure. Without the tube there would be greater risk of causing irreparable functional damage on the limb and without the vessel the bleeding could turn out chaotic, deficient, or excessive. Using secondary objects facilitated the conditions to safely and precisely use the principal object. Thus, much of the success of a procedure lay in the availability and usefulness of the secondary objects, although these did not contribute to enhance the status of those using them.

Application of cupping therapy, which could be dry, to treat pain and disease, or during local bleedings, may likewise illustrate the difference between the principal and secondary objects and their relationship with the status of the care professional. The cupping therapy apparatus were principal objects during the procedure. The pump types only required the suction pump to apply them, but were costly and due to this not frequently used. To apply cupping therapy that was not pump type, it was necessary to eliminate the air from its interior so that it could adhere to the skin and this was accomplished by heating it inside.
The objects used to heat the air and facilitate the application of the cupping therapy were described as: ... any small body in ignition (CA 1:35-36), such as: a small piece of burlap... a small piece of wax candle, an alcohol lamp (CA 1:35-36). Thus, any object that could heat and rarefy the air in the cupping therapy was a secondary object of the procedure and did not contribute by itself to heighten the professional's status. The cupping therapy apparatus, a principal object, could be substituted by a common crystal glass and by doing so, the necessity was satisfied although not completely: cupping therapy can be a crystal glass, of variable diameter, conical shape, round at the bottom, and a circular opening with obtuse edges; lacking this instrument, it can be substituted by a common glass vessel, a mug, etc., albeit incompletely (CA 1:34, emphasis added).

With well-finished manufactured objects created for a specific function, it can be expected that another object of ordinary use cannot equal it in all those features, only substitute it to satisfy a necessity after the defect or lack of that manufactured. Also, it would not seem so professional and dignified to use a glass rather than a cupping-glass, which was specific for the procedure. Using a common glass showed the resourcefulness of the professional caregiver, but their professional image was affected given that it was associated to the use of household objects and of lesser effectiveness. While the principal and secondary objects could be substituted in the use, what were not substituted were the symbolic meaning that each one brought and their influence in the recognition and status of the professional.

The local refrigeration procedure or cryotherapy during mid-20th century also illustrates this point. In said procedure, the principal object was the rubber waterproof bag, which had evolved from the cloth dampened with cold water and the pig bladder filled with cold water: waterproof rubber bladders with a perfect seal, which adapt exactly to diverse parts of the body. Crushed ice is introduced in them and they must be again filled with ice once it melts (BC 8:596). The perfection of the object described by the author of the handbook highlights its specificity and technology of the time. However, it was not always available or due to its use it revealed defects and had to be substituted by a simpler object, but useful in therapeutic terms, like the pie pan: Many times a rubber bag is not available for the ice or it often seeps water, or it leaks; in these occasions it could be substituted by an aluminum pie pan with a watertight seal found in all humble homes (BC 8:596).

In spite of it being useful in therapeutic terms, the pie pan was a secondary object regarding its status, against the waterproof bag for the cryotherapy procedure. Hence, the status of objects was not only determined by its practical use, but that it was also attributed and influenced on the image of the professional using it. In this case, as in that of the glass that substitutes the cupping-glass, its status is associated to the household setting and not to the clinical and technological environment. The image of care professionals with a waterproof bag in their hands differs from the image of the same professionals who instead of the bag hold a pie pan in their hands; although therapeutically both objects fulfilled the same function. Although the pie pan was an object found in humble homes, it contributed to representing the image of humble work of the professional of the period. Thus, it may be stated that the specialization of technological objects in the material world for care and the distinction of status among them in the procedures, have influenced, in turn, upon the status of professionals dedicated to caring.

**Guarded objects and social recognition**

Among the technological objects, described in the handbooks for, the care of the sick reviewed, a group of instruments is highlighted and which the professional caregivers could not use, but carefully safeguard for use by physicians. These objects represented the period's cutting-edge technology. Its good function depended on its good conservation, but its use was not trusted upon e professional caregivers. Thus, the relationship with these objects consisted in cleaning them, keeping them in good condition,
and helping in their operation. The thermocautery, the Potain aspirator, the metallic bladder catheter, instruments for blood transfusions, lumbar puncture needles, among others, were safeguarded by the care professionals, who were their safe keepers, overseers, and caretakers, but not their users.

For example, the thermocautery was used to stop hemorrhage and it was described in different handbooks throughout the study period. There were various models and the professional caregivers had to know their assembly, cleaning, and operation; they needed to know how these operated and their usefulness, but the person who used them was the physician: General manipulation and preservation of the thermocautery.—Place on one side an alcohol lamp... on the other at a give distance, place the bellows bottle ...; then, close it tightly.... Screw on the cylinder... plug the free rubber tube. The thermocautery is now mounted ... Upon finishing the operation, the aide [healthcare professional] again heats the sheet... removes the bottle, takes the knife given by the operator [physician], separates the handle from the rubber tube, rapidly rubs the sheet on a piece of burlap and lets it air cool. Finally, open the bottle and empty it, to again fill it during each subsequent session with a new essence (FC5:133).

By mid-20th century, the relationship of professional caregivers with the thermocautery was still that of safeguard and they had to care for its good condition: It is quite convenient for the aide to periodically check this instrument’s good functioning to always have it ready (BC 8: 632-633). Another example of guarded objects is the Potain aspirator used for aspiration punctures. This apparatus was frequently in the hands of professional caregivers who had to know how to handle it, clean it, assemble it, make it function to help the physician during the thoracocentesis operation (LM 7:196. Emphasis added).

When professional caregivers manipulated these objects, it was to be at the service of physicians. They had to make it function, start it, and turn it off. This relationship of caring for the object placed professionals in a subordinate position with the physicians, who actually instrumented these technological objects. However, by being responsible for caring and keeping them in good condition for future use, they were objects included in the material world for care. With these objects, professional caregivers were related to non-therapeutic purposes. These fulfilled, finally, their therapeutic function of skilled users who had been trained and recognized and who were the physicians, but only after having passed through the careful hands of their custodians and caretakers, who guaranteed their optimal functioning. Thus, the objects safeguarded were in the periphery of nursing care.

The objects safeguarded were important objects in the use and granted category to their exclusive users, physicians. For example, when professional caregivers practiced bleedings, hemorrhage could take place and with the means available that they were allowed to use they could not control. This situation required the presence of the physician to use the thermocautery, as described in the following quote:...it is a vulgar practice to take a piece of reed or wood Split at one end, take the edges of the wound with this improvised clamp, and for greater safety tie both branches with a strong thread. If blood still continues to come out, call the physician to remedy this situation... To successfully stop the hemorrhage, the physician will cauterize with silver nitrate or other more important means (CM 2:47. Emphasis added).

Thus, the important means were related to the medical practice and ordinary means were related to the care practice and in the quote these are granted vulgar status, that is: of little technique. The objects guarded by the professional caregivers and used exclusively by physicians...
were technological, in current terms, of last generation and could not be compared to common material resources for care highlighted for their simplicity and accessory nature. According to the handbooks analyzed, formation, use of objects, and social status were closely linked. According to these handbooks, ordinary objects used by nurses and practitioners characterized a simple art and in that professionals found their humble recognition, subordinated to the physician:

Nothing more serious and momentous than intrusions in medicine; practitioners must always avoid them and limit themselves to serving with skill and diligence that which is ordered: that there is also glory for the simple art. Each one within their sphere of action can be useful to the ailing humanity (CM 2: 2).

The subordination represented by safeguarding objects and which was clearly evidenced in the handbooks studied, went unnoticed while practitioners and nurses were taught, for example, that their prestige rested on the details and ways of doing things without causing harm to the patient, like removing an adhesive bandage from the skin:

It should always be removed with a cotton impregnated in benzene or gasoline; otherwise, harm will be caused to the patient. The prestige of practitioners and nurses was founded on these small details (BC II 8: 495). Power and domination over professional caregivers was not only present in what was taught, but also in the symbolic meaning of the objects they used like those they not only had to safeguard, but also love and not use.

**Discussion**

Nursing care in Spain between 1855 and 1955 was inscribed within a material world constructed and inhabited by relationships and interactions with and through objects. As shown in the results of this study, objects to care for the sick were not part of a stage, but part of the actions of caring. All the handbooks studied were written by physicians, a common practice at the time, and permitted knowing that the objects were linked to those who used them and that it is on the action upon the object where it acquires its meaning. Furthermore, the socially attributed symbolic meaning objects have, influences upon the individuals using them and on their relationships, thereby, objects that mediate a practice like nursing care may distinguish it as a professional group and influence upon its social status.

Objects from the material world for care during the period were products of scientific development and progress. Hence, it was already known that diseases were produced by pathogenic agents, not by miasmas.24 Thus, scientific progress, asepsis, and antisepsis favored technological developments and products for healthcare, so that the material and instrumental resources used in caring were the cutting-edge technology for patient care at the time. The most complex technology, that which required the greatest skill, technique ability and knowledge, was that used by physicians. Technology has a double edge;7 while it used to satisfy a necessity, it is also instrumented to preserve or favor a social image. Thus, the scientifically complex objects used by physicians raise their social hierarchy; simple objects used by professional caregivers lower them in the social scale. Knowledge, power, and the material world remain, thus, intertwined.

Although in the use of technology nursing found visibility and social recognition,7 not all technological objects have raised the prestige of nursing professionals; the technical use of some of these objects may even degrade them in the social status due to their symbolic meaning. The secondary objects are the clear example. Thus, during the study period, using a spittoon or an alcohol lamp did not symbolize the same as manipulating a urinary catheter or a cupping-glass; all these technological objects could be used by the professionals. The symbolic meaning of simple secondary objects, merely mentioned in the handbooks and certainly numerous, contributed to accentuating the roles of the occupations dedicated to caring and their slight prestige. Hence, social recognition of professionals
dedicated to caring has been historically linked to the use of secondary objects, which were also the technology of the period.

The work of caring for the sick has historically been a feminine task. This sexual division of the work is linked to an evident technical and social division in the material world for care during the study period. Objects closest to the household context were used by the professional caregivers, while those more scientific and elaborated with a specific function, far from the household context, were only safeguarded by them. The title of Technical Health Aide during the mid 20th century, which unified Practitioners, Nurses, and Midwives emphasizes the technical nature of their work. By this work being historically for women, its household dimension is juxtaposed to the technique and conditions their status. Women's occupations have low prestige or are somehow associated to the home and to household work. It could be said that the social identity of professional caregivers during the study period is, among other things, the syncretic result of the technical and the domestic. The female skills acquired in the household setting disqualify the technical skills carried out with them. The technical status is, thus, devalued and with it the occupation of caring for the sick.

In social groups, objects are considered polysemous and icons of social class, so, with their physical shape and use, communicate thoughts and hierarchies. In the material world for care during the study period, guarded objects symbolized and materialized the limit between what professionals knew and could do and what they could not. Some works have highlighted the role played by the technical dominance on the dependence of nursing with respect to medicine. However, safeguarding objects was an activity that also influenced on the status and professional subordination of nursing to medicine, which is worth acknowledging.

In effect, legislation granted privileges to the physicians, showing a relationship of power with respect to other healthcare professionals in Spain, during the 19th and 20th centuries. The use of some instruments and the safeguarding of others, as recognized in the handbooks studied, was an external imprint that, likewise, denoted subordination to the medical class. It is, thus, evident the role played by the objects in the construction and legitimizing of the social order, described by ethno-archaeologists. This role is revealed in the clinical practice, where the relationships with material objects establish a hierarchical order of dominance and hegemony of the medical class.

In conclusion, in Spain between 1855 and 1955 los nursing care took place within a scenario comprising – above all – objects with secondary status and objects situated in the periphery of care such as the guarded objects the professionals could not use. This material world contributed to the invisibility of the work of nursing, to its condition of subordination, and to the lower social recognition of the profession that has been historically pointed out. This study on the history of Spanish nursing has permitted knowing and understanding the past through the categories that emerged; nevertheless, the sources of information, handbooks written by physicians, represent a limitation of the study, upon revealing a partial vision of the material world for care. Continuing with this line of work and conducting other studies on the material world for care during different periods and from perspectives like material culture will contribute to understanding the role of the material world in the professionalization of the practice and in the development of the discipline of nursing.

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