COMPTER, C'EST SOIGNER

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RESUME :

Les infirmières et infirmiers périopératoires ont développé des pratiques en soins infirmiers de pointe très spécifiques. La pratique de compter tous les instruments et matériaux en est une découlant directement du principe directeur des soins périopératoires de ne jamais faire de tort. Cet article s'agit d'une analyse rétrospective de cette pratique et des influences l'ayant changée de la première moitié du 19e siècle jusqu'aux années 60.

COUNTING AS CARING

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ABSTRACT:

Perioperative nurses have developed specific expert nursing care practices. "Counting as caring" is certainly an approach in keeping with the perioperative nurse's guiding principle of beneficence (to do no harm). This article takes a retrospective look, from the first half of the last century through into the late 1960s, at the practice of counting and the influences that have changed it.

INTRODUCTION

Perioperative nursing is a specialty devoted to the ethical principle of beneficence (to do no harm). In order to maintain the safety of a patient undergoing surgical intervention perioperative nurses have developed expert nursing care practices regarding aseptic technique, patient positioning, and counting of sponges and instruments. This article takes a retrospective look, from the first half of last century through to the late 1960s, at the practice of counting and the influences that have changed it.

The operating room has traditionally been the domain of surgeons. Perioperative nurses took direction, regarding patient care, from the surgeon.[1] Like their sisters on the wards, however, these nurses took these directions, turned them in to rituals, and made them their own:

> "…the specific rituals of their practice empowered nurses to define for themselves what constituted good nursing."[2]

The practice of counting was, and is, one such ritual. This practice has evolved from counting only sponges (1900 through the 1950s), to counting sponges and all of the instruments (by the 1960s).

A review of the literature proves challenging as there are large gaps in the body of historical evidence regarding perioperative nursing. Some of the secondary sources used in this article are based on actions and happenings in the United States. These sources are felt to be valid, and their use to be justified, as the medical changes in the United States very often set the precedents for what happens in Canada.

COUNTING IN THE OPERATING ROOM

Perioperative nurses have counted surgical sponges since the early 1900s when sea sponges began to be used to clear blood from the surgical site.[3] Counting was of utmost importance to surgeons who also practiced the principle of beneficence and therefore did not wish to leave any sponges in the wound. Surgeons and nurses alike were well versed in the complications, such as pain and infection, associated with retained sponges.

By the post World War II era counting had become part of the perioperative nurse's surgical repertoire. The ritual itself, was taught by the demonstration and return demonstration method as described in the following,

> "It wasn't a written procedure but I was taught by the nurse who taught me that the scrub nurse was the person who must count the sponges with another Registered Nurse, and she was the person who would count the sponges and relay the final count to the surgeon…"[4]

Counting was done at the beginning of the case, before a cavity was opened, again when layers, such as the peritoneum, were closed, and finally when the skin was closed. The most important aspect of an uneventful surgical intervention remained the sponge count. As a perioperative nurse in 1953, OR/Perioperative Consultant Teresa Rodgers, RN, pointed out,

> "…when you would give them [surgeons] their count they would stop talking and listen very carefully to what you had to say."[5]

COUNTING IN THE 1950s

By 1957, Canada had moved to insurance-based payment for hospitalization. The availability of these programmes made medical and nursing services affordable to a greater segment of the public and, thereby, increased the demand.[6] Third party payments also meant that the insurance companies could dictate terms regarding practices to both doctors and hospitals. This was seen to be a shift in power as the public began to recognize the authority of the insurance company. The insurance company could pick and choose physicians and hospitals depending on whether or not they conformed to accepted practices. The practice of counting was outlined, by such a company, in 1956:

> "to ensure the patient's safety in the operating room, the Insurance Council of the California Hospital Association strongly recommends the use of sponges containing radio-opaque materials, and an accurate sponge count. The council's research indicates that three sponge counts are being taken routinely in most of the hospitals studied…"[7]

The insurance companies now became involved in setting hospital policy and nurses were required to follow these policies in order to ensure patient safety and fiscal responsibility on the public's behalf.

Despite this redistribution of power among doctors and insurance companies, the OR, as far as the courts were concerned, remained a surgeon's domain. Surgeons were responsible for everything that went on and lawsuits during this period of time were low,

> "…the operating surgeon must take legal notice of the fact that in the O.R., he is the master and has control over, and is responsible for, the acts of orderlies, nurses and his associates."[8]

During this time nursing schools began to separate students from the regular hospital workforce. Training was becoming more theoretical and students were being taught the rationales for nursing practice.[9] Better education for nurses came after 1945 as a result of the fact that perioperative nurses had shown, during World War II, that they could be educated to do some jobs previously assigned only to surgeons. These jobs were most commonly the role of surgeon's scrub nurse and first assistant. These nurses learned to assess, or triage, surgical patients, to suture, to ensure hemostasis, and, many times, to open and close the incision itself,

> "In this role, nurses opened and closed wounds; the surgeon performed the internal interventions. Tying and clamping of bleeders was a routine nursing function. Nursing experience with abdominal and chest surgery was increasing, and nurses sometimes performed procedures such as tracheostomy and chest tube insertion."[10]

Counting As Caring (cont.)

This specialized education of perioperative nurses, outside the schools of nursing, also increased their personal awareness of their role as patient advocate and of their responsibilities to patients, staff, and students. It allowed them, through their professional organizations, to question the status quo and to become more self-directed:

> "The first national conference of AORN [Association of Operating Room Nurses] was held in February 1954, with the major topic 'Where Do We Belong?'. Through this peer support, operating room nurses began to identify themselves as leaders, supervisors and teachers."[11]

This was seen to be a shift in power for nurses as their authority regarding perioperative nursing was being clearly identified, their education and abilities to perform what had been traditional surgeon's work increased, and nurses began to feel able to pass judgement on a surgeon's abilities.

Advancements in technology, during the late '50s and early '60s, would greatly impact on the practice of surgery. Technologies such as the cardiopulmonary bypass machine (allowing surgeons to perform open heart surgery), blood transfusion equipment (allowing for emergency surgery of unstable patients), and ventilators for anaesthetized patient (allowing for an increase in the duration of surgical procedures), dramatically changed surgery. The formulation of antibiotics also reduced risk of postoperative infection and sepsis.[12]

These advancements influenced the practice of counting. First, increased numbers of instruments were now required for more specialized interventions such as cardiac, thoracic and vascular surgery, and second, the size of the instruments varied from large to very small. Nurses knew what basic instruments were required, what specialized instruments were required, how to clean, sterilize, and maintain them for optimal use. Perioperative nurses not only cared for their patients- they also "cared" for the instruments. The more instruments and the smaller the instruments the higher the risk of leaving them in the patient.

COUNTING IN THE 1960s

The greatest change in the practice of counting came during this decade. Nurses were dealing with an increasing numbers of instruments, per case, on their back tables and many of these instruments were much smaller in size than ever before. The literature, for the first time, made reference to both the sponge count and the "lap" count (which included instruments):

> "Any similar omissions as failure to use a sponge stick for sponges, or a ring on a lap or failure to ask the nurse if she has verified the lap count or failure upon the part of the surgeon to check the sponge count would be sufficient to be circumstantial evidence of neglect."[14]

By the 1960s hospitals, instead of the home, were the primary site of health care delivery, and the only site for surgical interventions. Medical services were now being subsidized by the federal and provincial governments as outlined by the Hall Commission in 1964[15] and enacted by the Medical Care Bill in 1966.[16] Insurance companies and/or patients no longer paid the doctor's services. The government now paid and it demanded fiscal accountability. Insurance-based programmes were still available to those wishing to purchase "extras" such as private rooms and special private-duty nurses.

In hospitals, patients were now seen to cost money. Hospital administrators depended on nurse managers to implement rationalization methods in order to improve hospital efficiencies and reduce expenditures. These rationalization methods, which "served to standardize the amount of time nurses spend on particular tasks…"[17], had on effect on how counting was done. Perioperative nurses increased their expert power, acquired through knowledge of surgical interventions and instrument usage, in order to devise the fastest and most efficient way to count both sponges and instruments. This included a standard way of setting up or placing the instruments on the

table that coincided with the order of the instruments on the count sheet. Two nurses could then *run* through the count, in the order expected, in a shorter period of time, while ensuring the process was accurate. This increased the efficiency of the OR, minimized the time required by the surgeon, maintained patient safety. The lessons, provided by their predecessors, regarding scientific management[18] were well used.

In addition, under the new socialized system the purchase of expensive surgical instruments would have to be justified. Counting them allowed the hospital administration to keep track of how many instruments were needed and were used for each intervention.

By the mid 1960s, cardiac, thoracic, and neurological surgeries were part of the services expected by the general public in most hospitals. As Teresa Rodgers describes,

> "…surgery was pretty routine until we got a new chief of surgery… and then we seemed to embark on different procedures…I can recall…a couple of new procedures that we did would be a thoracotomy, the other one is a cardiovascular surgery like mitral commissurotomies and neurosurgery. Those were some of the things that came in, in the sixties."[19]

The 1960s saw changes in the public's expectation surrounding health, medicine, and the law as they were portrayed through the medium of television. This was the time of well known television "physicians" such as *Dr. Ben Casey*, and *Dr. Kildare*, as well as an interest in the courtroom activities of Perry Mason. This decade witnessed extreme changes in the actions of the public from Woodstock and love-ins, to increased recreational drug use and the Vietnam war. These turbulent times also saw dramatic increases in technology including the ability to put a man on the moon. In this decade people questioned the establishment, denied authority, and prioritized the rights of individuals:

> "There was a time when it was a generally accepted principle that every citizen owed something to his country in the way of service, and to his fellow citizens in the matter of fair play. The new political philosophy has taught people that they owe nothing to anyone but themselves."[20]

A change in the public's expectations of nurses was seen in the increasing number of references, in the nursing literature, to legal issues. An article in the *Canadian Nurse*, in December 1964, is cited,

> "In the performance of her duties, the nurse is subject to the common regulations of law. This means that when she is proven to be at fault, she incurs responsibility according to the foregoing criterion based on the concept of the ideal citizen…"[21]

Attitudes of the general public, reflecting an increase in the public's legal power, were summed up in 1968,

> "It is sad to relate that malpractice actions and claims are on the rise. The reasons for this are not too difficult to explain when one realizes that we are living in an era in which the general public is law suit conscious."[22]

This change in attitudes was reported in a U.S. *Department of Health, Education and Welfare* study issued in 1973,

> "In the Commission's study of legal doctrines, it was reported that *res ipsa loquitor {the thing speaks for itself}* [13] has been an issue in an increasing percentage of appellate decisions in the past 20 years. It was considered in 13.4% of the cases decided in the period 1961-1970, as compared to only 6.3% of the cases prior to 1950."[23]

Throughout the 1960s medical technology continued to expand and to refine previous developments. The invention of equipment such as the operating microscope allowed surgeons to perform more invasive microsurgery that resulted in the creation of even smaller instruments and the need for even more intensive instrument "care".

CONCLUSIONS

This ritualized practice of counting remained unchanged during the first half of the last century until the 1960s when it was influenced by shifts in power within the health care system.

Power shifted from away from doctors and administrators and toward governments who now took on managing the fiscal side of health care. The result was an increase in the public accountability and responsibility of institutions and individuals. Counting offered a way to prevent the re-admission of patients, due to complications resulting from retained objects, and ensured proper inventory of instruments.

Additional power shifted away from doctors, and on to administrators and nurse managers, in response to increased patient workloads due to increasing public demand for services. The ritual of counting was rationalized to be an efficient and accurate way to maintain safety while ensuring best use of the surgeon's time.

In another form, power shifted from doctors to the general public as legal actions for untoward events due to perceptions of practice, as portrayed in the media, were successful.

Medical advancements, resulting in more and smaller instruments, also increased nurses' expert power and placed a greater importance on counting. Counts ensured the safety of the public and maintained the reputation of the surgeons and the nurses by guarding against the possibility of litigation.

By the 1960s, counting had changed. Today, new innovations such as laparoscopic, or "keyhole", surgery offer OR nurses the opportunity to reassess counting practices and to determine whether more changes are necessary in order to best serve both our patients and our institutions.

Whatever form counting takes in the future, it will undoubtedly continue to be an important part of the perioperative nurse's role in the caring, and curing, of surgical patients.

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