

NURSES' UNDERSTANDING OF STANDARD PRECAUTIONS AT A PUBLIC HOSPITAL IN GOIANIA - GO, BRAZIL

Dulcelene de Sousa Melo¹
Adenícia Custódia Silva e Souza²
Anaclara Ferreira Veiga Tipple²
Zilah Cândida Pereira das Neves³
Milca Severino Pereira⁴

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Standard Precautions (SP) are effective strategies to prevent and control nosocomial infections. This study aimed to verify nurses' understanding about standard precaution measures. Data were collected through interviews, followed by content analysis in accordance with Bardin. Eighty-two nurses took part in this study, 75.6% of whom understand SP as protective measures: for professionals (11.0%); for both professionals and patients (52.4%); for patient care independently of the diagnosis (7.3%); for patients with diagnosed infection (9.8%). Other nurses indicated SP as human care (4.9%) and only as Individual Protection Equipment (IPE) (11.0%). Most participants' understanding points to favorable cognitive adaptation to the daily implementation of SP. However, reductionist and even mistaken perceptions about their range persist, which makes the social function of these measures vulnerable.

DESCRIPTORS: nursing; knowledge; universal precautions; cross infection

COMPRESIÓN SOBRE PRECAUCIONES MODELO POR LOS ENFERMEROS DE UN HOSPITAL PÚBLICO DE GOIANIA - GO, BRASIL

Las precauciones modelo constituyen estrategias efectivas para la preservación y el control de las infecciones en los servicios de atención a la salud. La finalidad de esta investigación fue constatar la comprensión de los enfermeros respecto a las medidas de precaución modelo. Los datos fueron obtenidos a través de entrevista, seguida de un análisis de contenido de acuerdo con Bardin. Participaron de este estudio 82 enfermeros y el 75,6% de estos comprende las precauciones modelo como medidas de protección: para el profesional (11,0%), para el profesional y para el paciente (52,4%); en la atención al paciente independiente del diagnóstico (7,3%); en la atención a pacientes que se sabe que están infectados (9,8%). Otros enfermos se refirieron a las precauciones modelo como cuidado humano (4,9%) y apenas como la utilización de un equipo de protección individual (EPI) (11,0%). La comprensión emitida por la mayoría de los sujetos presenta adecuación de conocimiento favorable a la implementación de las precauciones modelo diariamente. Mientras tanto, fueron comprobadas percepciones de reducción y hasta distorsionadas del alcance de estas, lo que deja vulnerable la función social de estas medidas.

DESCRIPTORES: enfermería; conocimiento; precauciones universales; infección hospitalaria

COMPREENSÃO SOBRE PRECAUÇÕES PADRÃO PELOS ENFERMEIROS DE UM HOSPITAL PÚBLICO DE GOIÂNIA - GO

As precauções padrão (PP) constituem estratégias efetivas para a prevenção e controle das infecções, em Serviços de Assistência à Saúde. O objetivo desta investigação foi verificar a compreensão dos enfermeiros sobre as medidas de PP. Os dados foram obtidos por meio de entrevistas com posterior Análise de Conteúdo conforme Bardin. Participaram do estudo 82 enfermeiros e 75,6% compreenderam as PP como medidas de proteção: para o profissional (11,0%); para o profissional e o paciente (52,4%); no atendimento ao paciente independente do diagnóstico (7,3%); e a pacientes sabidamente infectados (9,8%). Outros enfermeiros relataram as PP como cuidado humano (4,9%) e apenas como o uso de EPI (11,0%). A compreensão emitida pela maioria dos sujeitos aponta adequação cognitiva favorável à implementação das PP no cotidiano. Entretanto, foram verificadas percepções reductionistas e até distorcidas da sua abrangência, o que coloca vulnerável a função social de tais medidas.

DESCRIPTORES: enfermagem; conhecimento; precauções universais; infecção hospitalar

¹ M.Sc. in Nursing, Assistant Nurse, Surgical Center, Hospital das Clínicas, e-mail: dsmelo11@yahoo.com.br; ² Ph.D. in Nursing, Adjunct Professor, Faculty of Nursing, Goiás Federal University; ³ M.Sc. in Nursing, Municipal and State Health Secretary; ⁴ Ph.D. in Nursing, Full Professor, Goiás Federal University Faculty of Nursing

INTRODUCTION

Infections in health care services (HCS) represent a global problem and constitute one of the main causes of morbidity and death associated with clinical, diagnostic and therapeutic procedures⁽¹⁻²⁾. Besides their range for patients, the problem is equally important for health care workers (HCW), who are continuously subject to occupational risks. As exposure is a constant premise for professionals as well as patients, intervention measures have been proposed to minimize this situation, with the implementation of standard precautions (SP) as one of the strategies. These are a set of planned actions aimed at protecting patients and professionals.

The use of SP is recommended for care delivery to all patients, independently of their presumed infection state, when handling equipment and devices that are contaminated or suspected of contamination, in situations of contact risk with: blood, body fluids, secretions and excretions, except for sweat, without considering the presence or absence of visible blood and skin with solution of continuity and mucous tissues⁽³⁾.

Standard precautions include the following measures: hand washing, use of barriers (gloves, gown, cap, mask), care with devices, equipment and clothing used during care, environmental control (surface processing protocols, health service waste handling), adequate discarding of sharp instruments and needles and patient's accommodation in line with requirement levels as an infection transmission source⁽³⁾. Another important measure is professional immunization, as this guarantees anticipated protection against immuno-preventable diseases.

We know that the Centers for Disease Control and Prevention (CDC) established these measures in 1996⁽³⁾, and that they should be consolidated in care practice. However, this has not been observed. Although easily understandable, implementing SP remains a challenge. One of the reasons is low adherence among professionals, conditioned by different factors, including their subjective aspects⁽⁴⁻⁹⁾.

Acknowledging this reality increases our anxiety and discomfort, when we observe that the distancing of infection prevention and control practices in HCS objectively turns into damage to individuals, whose range is difficult to measure. Therefore, we inquire how professionals, in their professional practice that is aimed at care for life, exalt the greater good,

i.e. their own life and that of others, but neglect such important practices? What can explain this behavior?

Understanding this paradoxical relation is challenging. Thus, we proposed this study to try and clarify aspects of professionals' adherence to SP measures, with a view to apprehending the subjects' understanding of SP on the basis of their subjectivity. In addressing the subjects' perspective, we will indicate issues that can actually guide intervention strategies to change infection prevention and control practices in HCS.

OBJECTIVE

To verify nurses' understanding of standard precaution measures.

METHODOLOGY

This descriptive and qualitative study was carried out at a large public hospital in Goiania - GO, Brazil. Ninety nurses were chosen for the study, 82 of whom participated. All participants had been professionally active for one (01) year or more, in direct patient care, hospital hygiene and processing of clothing and dental-medical-hospital material processing. Eight (9.9%) professionals were excluded because they were on leave, holiday, refused to participate or did not have time for the interviews.

The research project was submitted to the Research Ethics Committee at the Hospital Dr. Anuar Auad and approved on 11/16/03 (Protocol 015/03). Professionals participated after individual contact and clarifications about the study objective. All subjects signed the free and informed consent term. Data were collected in the first semester of 2004. Interviews were held at the workplace and during work hours, using a semistructured script with data to characterize the subjects and a guiding question: talk about what you think are standard precautions. All interviews were written down and, at the end, read to the interviewees, in order to confirm or change the reports according to their reliability and convenience.

We used Content Analysis proposed by Bardin⁽¹⁰⁾. After exhaustive reading, three analytic categories were extracted, one of which gave rise to four subcategories. The subjects' discourse was identified by the letter E, followed by the interview number.

RESULTS AND DISCUSSION

Eighty-two (90.1%) nurses participated, 66 (80.5%) of whom were shift supervisors and 16 (19.5%) nursing service managers. The subjects' ages ranged from 27 to 65 years, with a mean age of 39.6 years. Most participants were women (91.5%). Service time at the institution varied between 6 months and 29 years. Fifty-nine (72.0%) participants had been professionally active for between 01 and 14 years (Mean: 8 years). These data confirm the predominance of female professionals in Nursing, and a mean service time of eight years suggests that these professionals probably did not have access to knowledge about SP during their undergraduate course, as these were issued in 1996⁽³⁾.

The analytic categories were: 1) Standard precautions as protection measures, with the following subcategories: protection measures - for patient care independently of the diagnosis; for professionals; for patients with diagnosed infection; 2) standard precautions as care; 3) standard precautions as the use of personal protective equipment.

One study subject (1.2%) did not manage to clearly express her understanding of SP, despite being a daily practice: *SP are precautions we have to take according to the case we are dealing with, we need to take precautions... SP is more general (E34)*. Two (2.4%) professionals presented SP as hospital infection (HI) prevention and control measures: *That would be precautions to avoid HI, to control HI (E43)*.

Standard precautions as protection measures

Sixty-two subjects (75.6%) considered SP as a protection strategy in daily health care activities. We agree, as we believe that protection is the basic premise of SP, which implies risk prevention and control.

Protection, translated in practice as safety in the reciprocal process established in health care, is the target of infection prevention and control measures in HCS. These measures are fundamental, as we cannot imagine quality care without them, in terms of the problems caused by HCS-related infections, whether to service providers or receivers.

The reports evidenced the participants' subjectivity with respect to the protection offered by SP, expressed in the following subcategories.

Protection measures for patient care independently of the diagnosis

Six (7.3%) nurses express this position, declaring that SP must be adopted in care for all patients, independently of their presumed state of infection or not: *They are basic to deliver care to any patient, independently of the existence of an infectious-contagious disease diagnosis (E15)*.

In a study about biological risk and biosafety in nurses' and nursing auxiliaries' daily work, most participants revealed this understanding, which demonstrates their comprehension about the universality of SP⁽⁸⁾. Facilitators of HCS-associated infection prevention and control have been working on this understanding together with health professionals, with a view to creating awareness about existing exposure, as well as to establish a safety culture.

We observed in report E48 that care practice covers specific behaviors that must be associated with SP, in punctual situations: *It is the habitual practice that must be used to work in the hospital area, with all types of patients, independently of the diagnoses, which give rise to specific measures (E48)*. Knowledge about precautions based on the transmission of microorganisms is necessary for care delivery to patients who have been infected or are suspected of infection with pathogens whose transmission is epidemiologically important, maximizing their prevention and control.

The statement: *Look, for me, the arrival of AIDS entailed HI, SP emerged, which are universal precautions for protection against blood, feces, secretions and aerosols in care for any patient, because it is not written on any patient that he has HIV (E6)* reveals that, although this professional considers that SP do not depend on the diagnosis, the focus of concern is HIV infection, mentioning the landmark in global public health that completely changed concepts, values, beliefs about the health-disease process, at different social levels, and which becomes evident as the source of concern is professional practice.

Bloodborne infection and other body fluids already existed before studies that demonstrated the etiopathogeny of HIV. However, it was on this occasion that epidemiology and the prevention of occupational exposure to bloodborne pathogens and other body fluids started to receive emphasis⁽¹¹⁾.

Despite acknowledging the epidemiological importance of HIV infection, mainly due to its community prevalence, beyond this aspect, professionals' concern often is also guided by the social representations this syndrome is loaded with. It is an adequate attitude to assess any care condition or

situation that poses risks, considering that, when we select possibilities, we exclude actual possibilities.

Protection measures for professionals

Nine (11.0%) subjects revealed the understanding that SP are aimed at professional protection: *SP are methods we use to protect ourselves against secretions. To be protected against these microorganisms (E16); It is the minimal care professionals have to take to avoid contamination for themselves (E38).*

Professionals' protection is presented as the basic aim of SP, which clearly expresses concerns with biological risk. Professionals' exposure to biological material has been associated with the transmission of HCV, HBV and HIV⁽¹²⁻¹³⁾, with prevalence rates exceeding those found in the community. However, in care, attention needs to turn to a collectivity (patients, professionals, relatives, community). Considering only one of the subjects' needs means losing the opportunity to critically establish effective protection and safety measures for themselves and other persons.

Protection measures in care for patients with diagnosed infection

Four subjects (4.9%) revealed the understanding that SP are aimed at care for patients with defined diagnoses, mainly with infectious and transmissible diseases: *SP are universal procedures that have to be used for care delivery to patients with infectious diseases [...] (E11); SP exist for all transmissible diseases (E20); It are precautions that have to be used with all patients according to the diagnosis, to perform procedures in them (E76).*

Adopting SP under these criteria only turns the safety of care professionals vulnerable: the professionals' own safety in the first place and that of patients and peers in the second. This perception entails aspects related to the subjects' beliefs that risks exist, but in concrete situations.

We know that established diagnoses do not define HCW' and patients' exposure, but merely advise on certain specific conducts. Thus, professionals put themselves and other subjects involved in the hands of luck itself. Pathogen transmission risks should not be ignored as, besides exposure to known, emerging and reemerging pathogens, we may be living with other microorganisms, of unknown epidemiological importance, whose problems we cannot dimension.

Protection measures for patients and professionals

This group of 43 (52.4%) interviewees declared that SP aim to protect patients as well as professionals: *They are protection measures for professionals as well as patients (E42); I believe these are precautions you have to follow to prevent infection for professionals and patients (E71).*

The subjects' references are in line with the CDC's precaution and isolation guide⁽³⁾. They constitute an adequate view from the perspective of not underestimating risks, neither for HCW' nor for patients, and make professionals responsible for implementing and applying the practices: *SP are those precautions through which you prevent yourself and prevent infection risk for the patient... (E69); SP are those, all those measures you use to protect yourself and other colleagues, besides patients (E46).* Without this precious awareness of professionals' individual and social responsibility, infection prevention and control measures cannot be established in HCS.

Some interviewees refer to the personal and professional dimensions of using SP: *SP are those precautions you have to adopt as a person, professional, protecting yourself and the patient, neither to contaminate yourself nor to contaminate the patient (E74).* They present that these measures emerge from the individual as a human being and professional, in a relation between persons. We believe that one of the points of success for the implementation of SP in daily care is to understand these interpersonal relations' sense of strength, as they recover the basic and necessary valuation that is capable of motivating individuals to establish ethical practices for infection prevention and control practices in HCS.

They also consider that SP prevent professional accidents and that their range goes beyond patient and professional protection, and suggest that infection surveillance, prevention and control among patients should be established by the team: *It would be a way for you to prevent a kind of occupational accident. Both for ourselves and for patients, not taking infections from one patient to another (E37); It are those basic procedures the entire team uses for individual, collective and patient protection in disease prevention (E56).*

Cross infection is a large problem in HCS nowadays. We highlight that, without the team's efforts and work, implementing measures like SP becomes impossible. This contributes to maintain the epidemiological chain of infections related to the care

process. Joint action is capable of making a large difference, motivating, supporting and maintaining cohesion with positive feedback.

One relevant aspect that emerged from discourse refers to the collective range of protection and to the consideration of changes established in the health care environment: *They are safety measures aimed at not transporting infections, whether from patient to patient or to the team, from patient to team and from team to patient (E66); I see SP as all these precautions to avoid infection, for my own and the patient's protection... and then not taking this infection to other persons, nor from others to others, nor to the entire team... (E60).*

Articulated actions to respect and protect any of the subjects involved in care result in collective protection. Great advances will be possible when all professionals become truly aware of the dimension and individual and collective extents of infection prevention and control practices in HCS.

However, talking about the implementation of SP implies the availability of an organizational and work structure to permit these actions^(4, 6). One of the subjects expresses this perception: *SP is a way of protecting ourselves and protecting patients and their companions in the exchange of microbes, of realizing the procedure calmly, it is no use if you have the knowledge but you neither have the conditions to work, nor awareness of the importance (E50).*

This professional highlights that knowledge of SP is not sufficient and that conditions to put these activities into practice are fundamental. The precariousness of work in HCS has been a reality, creating stress and exhaustion, besides exposing persons directly related to care, leading to unsatisfactory care quality.

In two reports, we found that nurses reveal concern about themselves and patients. However, with respect to patients, attention is limited to specific situations: *SP are appropriate measures we use to protect ourselves and, depending on the situation, to protect patients. E.g.: leukemia (E10); the measures used so as not to catch infections. Not to contaminate myself in general, but to protect the patient at times (aseptic techniques)... (E68).* They ignore that, no matter patients' conditions or the procedures they will be subject to, the risk of infection is intrinsic, and professionals are responsible for intervening and minimizing these possibilities.

Although these are pertinent punctual aspects, we need to continuously establish the patient safety culture, and this includes: equity and equality in care. However, this implies that professionals are not

considered any less important than patients. Both should be taken into account equally. If not, we may fall into practices with irremediable consequences. We believe that all sides will benefit if we incorporate this understanding in practice.

Within the understanding of SP, reports demonstrate that protection also includes the environment: *SP is a set of attitudes, professional posture, technique in which you perform care safely, protecting patients, ourselves, professionals and the environment, because other elements are involved in care practice (E47).*

Environmental control is part of SP measures⁽³⁾ and is associated with infections in HCS, giving rise to foci of contact and transmission at a secondary but not less important level⁽¹⁴⁾. Protocols need to be established which prioritize this question, so as to guarantee high-quality and safe processes. Besides interfering, even if secondarily, in the occurrence of HCS-related infections, SP also promote all individuals' comfort and well-being.

Standard precautions as human care

Eight nurses (9.8%) consider SP as care aimed at protecting professionals and patients, in a comprehensive human care perspective. This view reveals that they look at the interpersonal relations experienced in health care: *That whole process, the care you take to preserve the physical, mental integrity of the companion, of the professional colleagues, our own and mainly the patient's. It is a device you have to work safely, with less risk (E27). SP are care we have to take when we are handling patients, to protect ourselves and the patient, not to contaminate neither ourselves nor the patient (E55).*

These statements refer to the unique and essential characteristic of Nursing. This care is intrinsic in values that prioritize peace, freedom, respect and love, among other aspects⁽¹⁵⁾.

These professionals demonstrate a holistic view, evidenced in their concern with safety and maintaining the physical and psychological integrity of the persons involved in the health care process, mainly of patients, and that care is permanent: *SP are the care we have to take in daily care activities, directed at ourselves... both I and he. I believe that, when there's no material for wound dressing, you can't do it just any way (E73).*

They recover the understanding of human dignity and respect, and that it is not ethical "to do it just any way", which is a daily exercise. At certain times in care practice, nurses face situations in which

it is hard to choose between what is ethical and what is necessary, in view of inadequate work conditions. Professionals should pursue recognition and critique in order to achieve ethical care, as we cannot break codes that stain human integrity, and adopt an anti-ethical attitude under the defense of being ethical.

One of the subjects broadens the understanding of SP as care beyond situations of contact with blood and body fluids to prevent risks and problems: *SP are the care you take when you are going to deliver care and have contact with blood, secretions, the patient himself, to prevent further complications not only for the patient... but when I prepare serum, medication... (E21)*. This statement evidences that there are other important actions in care, and that the failure to maintain aseptic principles can entail unwanted consequences for patients.

Standard precautions as the use of personal protective equipment (PPE)

Nine subjects (11.0%) referred to SP as the use of physical barriers: *I think of PPE, that is what it boils down to (E45); Standard Precautions, that's what I am going to use to protect the patient from an infection and myself too. I use a mask, safety glasses...(E2); I believe it's what applies to all patients, independently of the disease. We use it because it protects us, it protects the mucosa, airways and contact with the patient's body fluids, and in the opposite direction (E3)*.

Since the start of the aids epidemic, which culminated in the establishment of universal precautions⁽¹⁶⁾, the following measures have been emphasized: use of PPE, hand washing and adequate handling of sharp instruments and needles, as evidenced in the following statements: *For me, it's related to yourself and the use of PPE: mask, safety glasses, gloves... I believe other items would be the use of the lead apron, rubber gloves for HIV patients or double latex gloves, hand washing, discarding of piercing and cutting material (E7); SP is hand washing, using a cap, mask, gown... discarding piercing and cutting material adequately, using gloves (E36)*.

This is already part of health professionals' collective construction, although this does not mean full adherence. We infer that low adherence levels, mainly to some PPE, is due, among other reasons, to: underestimation of risks, unavailability of PPE, perception that they create physical discomfort for professionals and psychological discomfort for patients, as well as lack of clarity about situations in which the use of PPE is justified⁽⁴⁻⁹⁾.

These statements revealed the aspect of health professionals as a source of infection for patients: *if I had an infected injury, I would have a focus and I could be transmitting it (E3)*. This level of reflection is exalted in daily professional activities, not only as a source of infection, but also as a source of other injuries, resulting from the lack of a system that both organizes safety and aims for safety.

Although physicians, nurses and pharmacists are careful and trained for excellent care, their professional practices reveal high error rates. However, these are ignored and have not stimulated reflections and initiatives to prevent them, for different reasons: difficulty to deal with errors, resulting from their academic training, which imposes a practice where errors are not allowable and professionals need to be infallible⁽¹⁷⁾.

Other components that have rendered this perception difficult refer to understanding the ethics of care. It is evident that the good reigns over evil. However, when we believe in our subjectivity that our actions are the good, even if the ending is not, the feeling of duty accomplished and the satisfaction of an immediate response to the patient's needs, with a positive/negative outcome, replace the feelings derived from errors during the process, in which the assessment of this fact is not considered necessary.

Moreover, assessing error situations places the individual in the condition of violating standards, protocols, values, etc., and this type of personal exposure has not been constructed in our culture. Delaying or not performing evaluations of success or error situations means losing the opportunity to establish safe care processes. If we want to modify our care reality, we need to add planning and permanent assessment into our care practice, in order to prevent situations that threaten the maintenance and preservation of life in its full sense.

FINAL CONSIDERATIONS

Standard Precautions contain the basic principles of all infection prevention and control measures. Paradoxically, care-related exposure to infections in HCS is a permanent in the search to maintain and/or recover life, whether through professional activities or by the need to reestablish and maintain health. Its range goes beyond the orientations described in the CDC guide or in any

other manual of standards and protocols. SP involve permanent surveillance and assessment of care actions. Guides and protocols are important in infection prevention and control measures in HCS, but are not sufficient. They certainly permit the organization of work to the benefit of the safety system.

The understanding revealed by most subjects' discourse shows SP as protection measures for: patient care independently of the diagnosis; professionals; professionals and patients; care delivery to patients with diagnosed infection. Other nurses indicated SP as: care to protect subjects of the health care process and the use of Personal Protective Equipment (PPE). The disclosed knowledge levels seem to be adequate for the implementation of SP in daily practice. However, we did not observe their solid construction, in the whole group, in view of reductionist and even mistaken perceptions about their range, which makes the social function of these measures vulnerable.

We believe that the understanding of SP, which refers to individuals' cognitive, affective and behavioral aspects, interferes in the formation and maintenance of attitudes that are coherent with infection prevention

and control in HCS. Our findings, which may apply to other realities, indicate the need for institutional investments in nursing competency training for this purpose, using different strategies, particularly permanent and continuing education. Competency development skills for HCS-related infection prevention and control need to be explored⁽¹⁸⁾, mainly in professionals who are key elements in the nursing and multidisciplinary teams. We believe they can facilitate the practical implementation of infection prevention and control measures in the work process of HCS.

It should be emphasized that making possible permanent and continuing education activities is not sufficient. There is a need to review how these are realized, as the attitude of mere information transmission, in line with traditional pedagogy, does not attend to the needs of the post-modern society. Knowledge construction should be guided by significant experiences, in a dialogic approach. If the health team is aware of SP measures, accompanied by the sustention of work organization in a broad sense, in our opinion, we will be moving towards ethical and esthetic responses to prevent and control infections associated with HCS.

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