THE
CONFUSED
PATIENT
Nurses’
Knowledge and
Interventions

ABSTRACT

The purpose of this study was to identify nurses’ knowledge and experience about confusion and its treatment. A random sample of hospital-based, medical-surgical registered nurses (N=100) was surveyed about their contact with confused patients and their knowledge about confusion. The findings suggest that nurses have regular and frequent contact with confused patients, caring for approximately three such patients in a week. They believe they are knowledgeable about confusion, rating their own knowledge on average as 2.9% on a scale ranging from 0 to 4. Restraint is the major treatment used for confusion, with 84% of the nurses reporting that the last confused patient they cared for was restrained. The high incidence data for use of restraints raise questions about what is a necessary restraint and whether restraints are overused in hospital settings. More attention needs to be directed toward finding alternatives to the use of restraints in the acute care hospital.

METHODS

Design
The data for this study were drawn from a larger four-part questionnaire administered to a random sample of hospital-based medical-surgical, Registered Nurses (RNs) from Ohio (Ludwick, 1993). The questionnaire, developed by the researchers, was based on a factorial survey design (Rossi & Anderson, 1982) and a research

BY RUTH LUDWICK, PhD, RNC AND
ANITA W. O’TOOLE, RN, CS, PhD, FAAN

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design developed by O'Toole, O'Toole, Webster, and Lucal (1993). In the larger study, nurse respondents were asked to complete a series of questionnaires: a last case questionnaire, a series of vignettes, a hypothetical case, and a demographic section. Two sections of the fourpart survey were used for this analysis: a) questions about the nurse's last case of patient confusion; and b) a section about professional background and employment. The last case approach was included to aid in construct and external validity for a vignette section of the larger study and to validate quantitatively previous qualitative findings about nurses' daily experiences with patients who are confused.

**Instruments**

The last case part of the questionnaire asked the nurses, through forced choice and open-ended questions, to identify their most recent contact with a confused patient. Each nurse was asked to recount the social, behavioral, and medical characteristics of the patient they had most recently cared for who was confused. Previous qualitative work by the senior author (Ludwick & Scott, 1990) demonstrated that nurses had frequent contact with confused patients and that they voluntarily provided information about patients' social, medical, and behavioral characteristics when talking about their experiences.

Demographic (age, gender, race) and professional information was drawn from the Background Questionnaire. Professional characteristics included education, experience, and contact with confused patients. Work and education variables included: a) basic nursing preparation; b) number of years experience as an RN; c) shift worked; d) employment status; and e) title of present position. Contact with confused patients was measured by the number of confused patients cared for in the most recent 5-day work period and by a self-assessment of the amount of contact with confused patients. Two measures of contact were used because self-assessment alone might be clouded by the amount of work patients required and a patient count alone did not consider the total number of patients a nurse might have when working full-time versus part-time.

Knowledge about confusion was measured by a self-rating scale, where 0 is no knowledge and 4 is a great deal of knowledge. A second question asked the nurses to identify and rank order their sources of knowledge as: a) books; b) journals; c) inservice; d) experience; e) other nurses; and f) school. Confidence in dealing with confusion was measured by a self-rating. Nurses rated themselves using a five-point Likert scale on their ability to identify confusion and intervene in confusion.

**Pretest**

The questionnaire was piloted using a convenience sample of RNs returning to a BSN program in Pennsylvania and RNs employed in a community hospital in Ohio. Criteria for the selection of nurses for piloting the instrument were the same as for the sample. Fifteen nurses completed the pretest. The purpose of the pretest was to confirm the length of time needed to complete the survey, to determine the order of questions and to identify any ambiguous questions. Examination of the responses resulted in minor editorial changes.

**Sampling Procedure**

Subjects were registered nurses licensed in Ohio. Criteria for inclusion in the study were that the nurse was a) currently employed at a hospital; and b) nurses who had direct care contact with patients practicing on an adult medical-surgical unit. Representative units might include medical-surgical, orthopedic, and intensive care units. This list was meant to be representative rather than prohibitive, so that nurses who worked on “specialty” units such as neurosurgical, geriatric, or cardiac were also asked to participate.

If a nurse met the criteria for participation and elected to do so, he/she was asked to return the completed questionnaire. If a nurse did not meet the criteria or chose not to participate, he/she was asked to return a pre-stamped postcard indicating the following: age, gender, work area, and basic preparation. This additional procedure allowed for comparison of respondents and nonrespondents.

**Data Collection and Preparation**

The data were collected solely with a mailed questionnaire. The
approximate time to complete the questionnaire as determined in the pilot study was 30 minutes. The surveys were mailed directly to the nurses’ home addresses.

**Sample**

The final sample of 100 registered nurses was randomly selected from the State Board list of 500 Registered Nurses in Ohio who listed the name of a hospital as their place of employment on their application. Screening for nurses working in the hospital in a medical-surgical setting reduced the number qualified to 136. The 100 respondents who participated in the study represent a 73.5% response rate of the 136 qualified nurses. Comparison of the non-respondents in the medical-surgical group with the respondents showed the nurses to be almost identical in age and gender. Comparison on the basic preparation of both groups of nurses was not done because of incomplete information from nonrespondents.

According to Table 1, most nurses completing the questionnaire were female, white, and married. Their age ranged from 23 to 60 with a mean of 37.6 years (SD=8.97). There was a fairly even distribution of educational preparation among the participants: nearly one third were educated in each of the three types of basic nursing programs. Almost two-thirds of the nurses were employed full-time and the majority (82.6%) described themselves as a staff nurse, or a nurse who worked on the floor in a nonsupervisory position.

**RESULTS**

**Contact and Knowledge**

The nurses’ contact with confused patients was measured in two ways. The nurses were asked the number of patients cared for in the past 5 days and to rate the amount of contact they perceived they had with confused patients on a Likert type scale (0 to 4), where 0 represented no contact and 4 represented a great deal. Most nurses had regular and recent contact with confused patients as demonstrated by the mean 2.80 (SD=3). This figure represents the average number of confused patients the nurses cared for in the past 5 days.

On the perceived contact with confused patients scale almost half (46%) of the nurses reported a great deal of contact (4) with confused patients (x=3.11, SD=.985). All respondents had some contact with confused patients.

Most nurses felt knowledgeable about confusion. Seventy-one percent of the nurses reported on a 0 to 4 knowledge scale, with 0 representing no knowledge and 4 representing a great deal of knowledge, that they rated their knowledge of confusion a 3 or 4 (x=2.96). An overwhelming majority (91.8%) felt confident (a rating of 3 or 4) in their ability to identify confusion (x=3.33). Similarly, the majority (91.8%) of nurses felt confident in their ability to intervene in patient confusion (x=3.27).

In an attempt to elicit further information about knowledge of confusion, subjects were asked to rank the importance of specific sources in contributing to their knowledge. Seventy-four percent of the nurses ranked on-the-job experience as the number one source of their knowledge. The least likely source of knowledge was the mass media.

**Last Case**

Reflecting their contact with confused patients, all 100 nurses in the study responded to the questions about the last patient they provided care for who was confused. The nurses reported that most of the patients they cared for were older white, and classified as a medical patient. The nurses were asked to identify the age of the patient through forced choice and the choices ranged by decades from under 20 to the 90s. One nurse indicated she had a patient under 20. The rest of the nurses indicated their patients were in their 40s or older. The average age of the patient described was in the 60s. Slightly more males than females were described as confused.

The patients described reflected a variety of medical conditions, but the most frequent reported diagnosis was related to the cardiovascular system (40%) and included such diagnoses as congestive heart failure and myocardial infarction. Most nurses (56%) reported they first identified the patient as confused from their own assessment. Another 29% stated they knew their patients were confused from other nurses. Eighty-four percent of the nurses reported using restraints on their last case patient who was confused. In a
similar pattern the majority (72%) of nurses stated that they or another registered nurse identified the need to restrain the patient. Twelve nurses noted that the physician, family, or friend requested restraints.

Nurses reported that the most frequent type of single restraint used was a vest restraint; twenty-seven (32%) of the nurses reported using this restraint. The next most frequently used type of restraint was an extremity restraint, such as an ankle or wrist restraint, with the wrist restraint most often cited. Nineteen or 22% of the nurses reported use of an extremity restraint. However, 35 nurses or 41.7% reported that a combination of restraints were used. The most common restraint combination was a vest and extremity.

Besides the questions about the use of restraints, the nurses were given the opportunity to respond to a question about other interventions they used to treat confusion (Table 2). Ninety-seven nurses responded by giving at least one other intervention. The interventions recounted most frequently were orienting the patient (55%), monitoring the patient (50%), and protecting the patient (36%) by using interventions such as putting up siderails and keeping the bed in a low position. It is interesting to note that 21 nurses responded to this open-ended question by listing another form of restraint such as a geri-chair or medication administration.

In response to a question asking for a ranking of the patient information that led the nurse to believe the patient was confused, 80% of the nurses gave data about the patient's verbal behavior. Forty percent of these nurses said that the patient was not oriented to person, time, or place. Seventeen percent of the nurses indicated that physical behavior was the clue to the diagnosis of confusion. The physical behaviors listed included: poor eye contact, restlessness, getting out of bed, not following commands, and pulling out tubes. Three percent of the nurses stated that the patient's history or the presence of restraints led them to believe the patient was confused.

Finally, the nurses were asked if the patient they identified was typical of the confused patients they care for, if their workload was changed because of this patient, and if they felt frustrated or rewarded when caring for the patient described. Seventy-seven percent of the nurses said the patient they described was typical and 86% said the patient increased their workload. Frustration/reward was measured on a 10-point Likert type scale where 0 was frustrated and

9 was rewarded, the sample mean on this scale was a 4.92, indicating that the nurses were evenly divided on their feelings.

**DISCUSSION AND IMPLICATIONS**

The purpose of this study was to identify nurses' experience and self-reported knowledge of confusion and its treatment. All 100 respondents gave an example of a confused patient they recently cared for, 46% of the respondents reporting a great deal of experience with confusion. Nurses reported caring for an average of three patients (x=2.8) in a 5-day period. These findings suggest that nurses do have regular contact with confused patients and that care of confused patients is common practice in acute care settings. This information confirms that, despite reported variations in incidence rates, nurses have regular and frequent contact with confused patients in acute care settings.

Specifics about the nurse's day-to-day contact with confused patients is needed to examine the impact of confusion on nursing service. Statistics citing 30% of all elderly medical-surgical patients as confused does not have the same impact as knowing the average number of confused
Little research has been done on what nurses know about confusion and their experiences in caring for the confused patient.

selected cases, but verbal disorientation alone may never lead to the type of behavior that restraints would prevent. In such cases restraints would be unnecessary.

Most of the nurses reported that they were knowledgeable about confusion and confident they could identify and treat confusion. It is notable that the majority of nurses ranked experience as the source of their knowledge. This finding is supported when medical-surgical texts are examined, most only include a brief definition of delirium (acute confusional states) and do not discuss treatment in depth. Recent fundamental nursing textbooks address the dangers of restraints and alternatives to the use of restraints. It is vital to further explore the nurses’ experiences with patients who are confused and thus expand the knowledge base of confusion.

REFERENCES


ABOUT THE AUTHORS

Ruth Ludwick, PhD, RNC, is Associate Professor, and Anita W. O’Toole, RN, CS, PhD, FAAN, is
Professor, Kent State University, Kent, Ohio.

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Address correspondence to Ruth Ludwick, PhD, RNC, Associate Professor, Kent State University, Kent, OH 44242-0001.

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KEYPOINTS

1. A random sample of hospital-based, medical-surgical registered nurses (N=100) was surveyed about their contact with confused patients and their knowledge about confusion.

2. The findings suggest that nurses have regular and frequent contact with confused patients, caring for approximately three such patients in a week.

3. Restraint is the major treatment used for confusion, with 8.4% of the nurses reporting that the last confused patient they cared for was restrained.

4. The high incidence data for use of restraints raise questions about what is a necessary restraint and whether restraints are overused in hospital settings.