Use of a Sound Recorder In Nurses' Home Visits

By MARION FERGUSON, R.N., Ph.D., and JEANNETTE E. WESTLAKE, R.N., M.P.H.

NURSES WORK with people so closely and under such varied conditions that the area of interpersonal relations has a special significance for this group.

Consideration of the circumstances which produce effective patient-nurse relationships has long been of concern to practitioners, administrators, and educators in the field of public health nursing. The most common methods for obtaining information about such contacts have been supervisory observations or stenographic and process recordings. Though these methods have been useful to varying degrees, each has certain drawbacks. Any method based on recall of events suffers from possible lack of accuracy and objectivity. While the stenographic transcript may overcome these objections, it fails to reveal the tone and pace of the patient-nurse relationship.

Reports on the use of sound recording equipment seemed to indicate that this method might overcome some of the objections to the procedures previously employed. For some time recording machines have been used in clinic situations to record interviews, and one investigator is using a sound recording device in the field to gather information for curriculum purposes. Further investigation of the use of sound recording equipment for gathering data on the content and conduct of nursing visits in the home was made during the spring of 1953 by the Public Health Service with the cooperation of the Alexandria (Va.) Health Department.

Participating in the field trial in the use of this equipment were 6 public health nurses of the Alexandria Health Department, with 20 of the families they served. As a preliminary to the activity, the group of nurses met to discuss details of procedure. All of them were agreed that, in this trial, they did not want to be responsible for the operation of the recorder. They were sure that it would be impossible for them to conduct an adequate interview under such circumstances since they would be unable to concentrate on the visit content while, at the same time, they made sure that the recorder was operating satisfactorily. They also felt they would be more comfortable if the third person present during the patient-nurse contact was another nurse since they would then have a greater sense of freedom in talking with the patient. Furthermore, the nurses believed that the patients would find it easier to accept the presence of another public health nurse as, in many instances, it would not be the first time two nurses had been in the home at the same time. For these reasons a second nurse was made responsible for recordings in the field.

Equipment Used

It was realized that the instrument used would have to be easily transportable; uncomplicated in operation; and capable of continuously recording a visit of average length. During the study three different types of magnetic recorders—one wire and two tape—were used.

The smallest instrument available was a

Dr. Ferguson, chief of studies, Division of Public Health Nursing, Public Health Service, has served in administrative, research, and nursing consultant capacities in the Public Health Service since 1942. She received her doctor of philosophy degree from Columbia University in 1944. Miss Westlake, consultant nurse in the same division at the time of this study and with the Public Health Service since 1941, has been assigned to the public health division of the Foreign Operations Administration Mission to Iraq. She received her master of public health degree from the University of Minnesota in 1950.

light-weight, battery-activated wire recorder which was easily and simply operated. However, the wire on the machine used in this investigation had a tendency to uncoil. This caused snarling that the nurses found difficult to untangle and too often resulted in the loss of recorded material.

One of the tape recorders was satisfactory except for its shape and weight which made manipulation in the field rather difficult. Moreover, household electric current was necessary for its operation and restricted its use.

The third could be operated either on a self-contained battery or through hookup to the household electric current. With this machine it was therefore possible to obtain a recording of the conversation and related activity from the time the knock at the door was answered until the door was closed at the termination of the visit. Its size, shape, and weight made field use feasible. The only objection to this recorder was that additional equipment was necessary for amplification of the recording to permit group listening.

Collection of Data

No preparation of the patient or family was made prior to the visit. In the field the nurse introduced her associate as "another public health nurse who is with me today," and requested permission to make the recording.

In setting up the machine certain precautions were found necessary to obtain a "good" recording. When the machine was situated outside the direct line of vision of both the patient and the nurse, awareness of its operation was minimized. The recording of the conversation was more comprehensible when the microphone was placed at approximately an equal distance from the participants in the interview and when extraneous noises, either in the immediate vicinity or in an adjoining room, were controlled. It was found that disturbing sounds were reflected from articles, such as lamps or shelves, which were too near the microphone. Television or radio in operation, a crying baby, or similar types of disturbances also made a clear recording impossible.

While the machine was being set up, the nurse and patient carried on a conversation which the nurse tried to keep irrelevant to the purpose of the visit. As soon as the recorder was functioning, the visit was carried through as usual. At its termination the nurses offered to play back the recording. They found that the patients only wanted to hear how their own voices sounded, so neither this activity nor any other connected with the study added more than a few extra minutes to the visit.

Reaction of Families

Little difficulty was anticipated with the families regarding the recording of the visits since many times they had shown interest in helping the field nurses with a variety of projects. However, the phrasing of the request for permission to record made some difference. When a positive reply was indicated, permission was more readily granted. An explanation of the purpose of the recording followed by the question "It's all right with you if we record this visit, isn't it?" brought a more immediate acquiescence than a request "Would you mind if we recorded this visit?"

There were possibly two additional reasons for the ready acceptance of the procedure by the families. The one was that, in giving a reason for making the recording, all emphasis was nurse-centered. The nurses stated they were attempting to find out what a nurse does in order that she and other nurses could do a better job. They made no direct mention of the family problem or the visit content in connection with the recording. A second reason was that practically all of the individuals were interested in, and had some knowledge of, the mechanics of recording. This was shown in two instances when the parent explained the purpose of the machine to a child before there was an opportunity to request permission to use the equipment. When children were present, they were given an opportunity to speak into the microphone and to listen to their recording before the actual interview started. As a result, while they were interested in the procedure, they did not interfere with the operation of the machine.

The presence of the second nurse did not seem to hinder the interview. The explanation

that she was "a public health nurse who was there to obtain the recording" was well accepted.

Reaction of Nurses

Difficulties encountered were, for the most part, related to the workers and not to the patients. The nurse's ability to convey, through actions, words and tone of voice, the impression that the procedure was quite ordinary, certainly helped make the patients feel comfortable. However, the nurses themselves had some difficulty in accepting the procedure. On the first use of the recorder, each nurse stated that she felt self-conscious—that she "couldn't think of a word to say." Tension was also indicated by the "overlapping" in conversation occasioned by the nurse's inability to wait for the patient to complete a statement before she interrupted with a comment.

As the nurses became more familiar with the equipment and more accustomed to the procedure, a change in behavior was noticed. After their first experience, the nurses made a more comprehensive plan for the visit content before going into the field. As they became comfortable about the procedure they showed less concern over possible protracted periods of silence during conversation with the patients. Also, in listening to the playback of the recording of the visit, they were less concerned with how they sounded and more with what actually happened, how and why it occurred, and how they could use the information gained in planning for future work with the patient.

Uses of Material

While the primary purpose of the project was to develop methodology for the collection of data regarding patient-nurse interaction, as one phase of a study of public health nurse functions, other uses for the recordings were soon discovered. The nurses listened to the playback as soon as possible after completing the visit. Their comments showed the possibilities of using this method in self-evaluation. Some of their observations were: "You can really tell what happened on the visit this way." "I didn't remember that the patient made that remark." "No wonder I got that answer from the patient—from this recording I'd never know what was meant either." They criticized their own use of words and sentence structure and, recognizing the relationship to the patient's understanding, determined to improve their ability to express ideas clearly. They tended to be overcritical of their work, to notice the ineffectual, and to fail to see evidences of good service. This is something which would need to be guarded against if the method were used for self-evaluation.

The nurses requested that their supervisor listen to the recordings of their visits so that she could evaluate their work. The supervisor found the recordings of value as supplements for field observations. The recordings provided data on the strengths and weaknesses of the service given by the individual nurse, on her progress in development, and on areas in which further guidance was needed.

Through use of this method it also would be possible to obtain a collection of recordings of material to show actual practice in the field of patient-nurse interaction. This material, which is otherwise unobtainable, would be useful in formal or inservice education of public health nurses. It might serve to demonstrate the degree of achievement to strive for; to evaluate the effectiveness of teaching techniques; to discover whether or not desired objectives are met; or to identify areas in which better ways or kinds of information are needed to improve the effectiveness of nursing service.

Conclusions

This experience with sound recording seems to indicate that it has advantages over methods previously used to collect data on patient-nurse contacts in the field situation because it provides an accurate, objective, and documented record of the patient-nurse interaction. Since incidental noises and activities, as well as tone of voice and pauses in conversation, tend to recreate the atmosphere under which the interview took place, the recording gives the entire situation greater reality than a written report could possibly give.

The recordings might be used for self-evaluation and supervision in public health nursing. Progress in development of the individual

nurse would be clearly indicated through comparison of recordings of early visits with those of later date. The supervisor would find them adequate as a supplement for time-consuming field observations. The staff nurse might use the recordings both as a means for improving her service to patients and as a means for self-improvement in the area of communication.

Although the use of the recorder in the field situation may be considered relatively expensive in cost of equipment, time, and personnel, it seems to yield results that make it a desirable tool for use in this area of interpersonal relations.

technical publications

Fifty-second Annual Conference, Surgeon General, Public Health Service, Chief, Children's Bureau, with State and Territorial Health Officials.

Public Health Service Publication No. 338. 1954. 45 pages.

The 52d annual conference of the Surgeon General of the Public Health Service and the Chief of the Children's Bureau with the State and Territorial health officials was held November 5–7, 1953, in Washington, D. C.

This publication contains the text of the addresses by Nelson Rockefeller, Under Secretary of the Department of Health, Education, and Welfare, Dr. Martha Eliot, and Dr. Leonard Scheele; and the recommendations of the seven committees of the conference. The three major addresses were published in the January 1954 issue of *Public Health Reports.*

Maternal Mortality Statistics, United States, 1950

Vital Statistics—Special Reports. National Summaries, vol. 37, No. 14, December 3, 1953

In 1950, 2,960 women died in the United States from deliveries and complications of pregnancy, childbirth, and the puerperium. The maternal mortality rate was 8.3 per 10,000 live births, the lowest on record for the United States. The rate was seven times as high 35 years ago.

This report presents maternal mortality rates by specific cause and by race; also for urban and rural areas and metropolitan and nonmetropolitan counties, geographic divisions, and States. Maternal mortality rates by race and age are given for 1950, and by race for the years 1915–1950.

Uniform Definitions of Motor Vehicle Accidents

Public Health Service Publication No. 330. 20 pages. 15 cents.

This is the second revision of the Uniform Definitions of Motor Vehicle Accidents and the first since 1947. Used principally by personnel in vital statistics and motor-vehicle accident records bureaus, the manual was revised in order to make it a more useful guide for such offices as well as traffic agencies, insurance companies, and other groups which compile figures on motor-vehicle accidents. It is an important reference for assuring uniformity and comparability in classifying information on traffic accidents.

One change in the revision is a new definition for injury. An appendix defines characteristics of the location of the accident. Injury was redefined to allow three rough classifications at the scene of the accident: objective signs like a bleeding wound or distorted limb; other visible injuries such as swelling, bruises, abrasions, or limping; or complaint of pain without visible signs of injury. These classifications were developed because the previous criterion, need for medical attention within 6 to 12 months of the accident, had proved impractical.

A paragraph was added to the section on allocation of motor-vehicle accidents according to geographic boundaries. No changes were made at this time in the definition of a motor-vehicle accident fatality, and in other respects the manual closely resembles the previous edition.

The definitions were formulated for the National Conference on Uniform Traffic Accident Statistics by a committee under the chairmanship of Dr. Halbert L. Dunn, chief of the National Office of Vital Statistics.

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