Questionnaires to Identify Nursing Homes Most in Need of Dietary Counsel

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QUESTIONNAIRES for appraisal of food service quality in nursing homes have been developed and tested by the Division of Chronic Diseases of the Public Health Service. They are designed to help identify those homes most in need of the counsel of nutritionists or dietary consultants and to assist agencies responsible for setting standards of care in nursing homes. Since the questionnaires can be filled out by persons without professional training in dietetics, their use should allow nutritionists to devote more time to consultation.

Background and Need

Food service in nursing homes must supply nutritional needs of patients in order to safeguard or improve health and also help fill emotional and social needs. For many nursing home residents, meal time is the major recurrent social event.

Recognizing the need for supporting suitable meal service, 21 State health departments in the past 2 years have budgeted new positions for dietary consultants or nutritionists to work with nursing homes. Only a few State licensure agencies are now without some service from professionally qualified nutritionists or dietary consultants.

In some State and local health departments dietary consultants are assigned full time to the nursing homes; in others they counsel hospitals and other institutions as well; in still others they serve nursing homes under a generalized public health program. In view of other demands on the nutritionist, the amount of time available for advising nursing homes on an individual basis is seldom adequate, and it is difficult to determine which homes need consultation most. The traditional approach to this problem has been to counsel nursing homes which ask for help. These homes deserve priority because constructive action will more likely result where there is a readiness to learn. However, if this is the only approach, the food service in those nursing homes above average will probably improve, but there may be little or no improvement in those below average.

Public health nurses, sanitarians, inspectors, and others from the licensure agency who visit nursing homes often evaluate the food service along with care and facilities. At the National Conference of Nursing Homes and Homes for the Aged held in Washington in February 1958, it was recommended that the entire staff of the regulatory agency be familiar with the criteria for evaluating food service and with the specific food service assistance available to the nursing home operator. Many forms, scorecards, and checklists have been developed for

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evaluating food service in nursing homes and related facilities. Effective use of most of these materials, however, requires subjective judgment based on professional background in dietetics and in quantity food production and service.

Development of Questionnaires

Late in 1959 the Public Health Service's chronic disease program began drafting an objective questionnaire to identify those nursing homes most in need of nutrition consultation. The questionnaire had to be relatively short and easy to use if it was to be administered by a non-nutritionist member of the licensure staff along with other evaluation responsibilities.

The preliminary questionnaire was reviewed by a committee organized to advise on the scope, organization, and terminology of the questions, and composed of dietary and nutrition consultants representing local or State health departments, the American Hospital Association, and the American Dietetic Association. Committee recommendations for additions, deletions, and changes guided the first revision which resulted in a questionnaire of approximately 200 questions. Interviewers could obtain 100 of the answers by observation and the other 100 by questioning personnel of the nursing homes. Field tests were planned to determine which items would produce the most reliable and discriminatory results.

Field Tests of Questionnaires

The 200-item questionnaire was first pilot tested in 10 nursing homes during noon meal periods. Its feasibility for use by non-nutritionists was tested by having a non-nutritionist use the questionnaire to interview personnel and make observations at a particular nursing home on one day, and a nutritionist, on a subsequent day. This pilot testing determined the following revisions, which resulted in a questionnaire of 125 questions: (*a*) regrouping to improve continuity; (*b*) rewording to clarify questions; (*c*) increasing the number of open-ended questions to avoid suggesting answers; (*d*) eliminating questions of little value; (*e*) adding more notes to clarify meaning; and (*f*) increasing the number of questions to be answered through observation, on the theory that observation produced more reliable information than asking questions.

The questionnaire of 125 items was then tested in 258 nursing homes in 19 States to determine the validity of each item in diverse geographic areas. Where interest in testing the questionnaire was expressed, a nutritionist and a public health analyst of the Public Health Service visited the official State health agency and described the project, criteria for selection of the sample, and testing procedures. If State agency personnel indicated they could participate, the agency interviewers were given a brief orientation on the questionnaire. In most instances the State director of nutrition services served as coordinator.

Each participating State was asked to select a minimum of 12 nursing homes. The sample of homes from each State was stratified by size of home and food service quality. Rating of the food service as above or below average was based on the professional judgment of the licensure agency staff. Half the selected homes were considered above average in food service quality; half, below average. Within each category there was an equal number of large and small homes. In the study, large nursing homes had 35 or more beds. It was the responsibility of the State agency personnel to explain the study to staffs of participating nursing homes. The non-nutritionist interviewer was briefed in the use of the questionnaire but had no professional training in dietetics.

As in the pilot study, each nursing home was visited during the noon meal period, first by the non-nutritionist and second, by the nutritionist 5 to 30 days later. Each State was asked to be consistent in either announcing or not announcing the dates of both visits. Each visit lasted 2 to 3 hours. The interviewers checked Yes or No for each item on the questionnaire.

In this field test, to ascertain whether each item on the questionnaire was sufficiently clear as written to be used by a non-nutritionist, the non-nutritionist was instructed to adhere to the questions as written, while the nutritionist was instructed to obtain the best answer she could by rephrasing, amplifying, and explaining. The nutritionist's answer was considered correct.

In analysis of the questionnaires completed on the 258 nursing homes, answers obtained by the non-nutritionists and the nutritionists were compared for reliability and validity. If there was less than 70 percent agreement in the answers of nutritionists and non-nutritionists to any question, it was removed from the questionnaire as unreliable. Also eliminated were questions which failed to produce for non-nutritionists answers discriminating enough to differentiate between nursing homes with better quality dietary service and those with less desirable service. By these deletions the 125-item questionnaire was shortened to 64 questions.

These 64 questions were grouped in order by areas of food service: menu planning, food preparation and meal service, food supply and storage, personnel and staff development, and purchasing and food cost records. The 64 retained items were divided into two tests by assigning the first item to questionnaire A, the second to questionnaire B, the third to questionnaire A, and so on. This division assures that the same areas of food service will be surveyed by each questionnaire. In both questionnaires the questions that are to be asked the nursing home personnel are marked with an asterisk; other questions are to be answered by observation. For example:

*Is salt used in cooking? (regular diets)____ Yes _____ No _____

Are eggs refrigerated? (to be answered while observing the storage areas)_____ Yes _____ No _____

With two questionnaires that can be alternated in periodic evaluations, nursing home personnel will be less likely to recall answers from the previous appraisal, and thus give a misleading impression of improvement. The results of either questionnaire will be approximately equal when used in the same or comparable homes.

Use of Questionnaires

The two questionnaires developed do not test every phase of dietary service in nursing homes. Preliminary questions on some subjects proved unsatisfactory when field tested and were eliminated. Among the eliminated questions were some relating to dietary service standards and regulations of States and to the Nursing Home Standards Guide of the Public Health Service (*1*). Therefore the questionnaires cannot be used to measure compliance with all dietary service standards and regulations. Nine questions on therapeutic diets and three designed to determine the adequacy of the protein component of the menu were eliminated because of low reliability value. Although the non-nutritionist, if given some inservice training, might be able to get reliable answers to some or all of these omitted questions, this premise was not tested in the study.

It is expected that a nutritionist or dietary consultant will introduce the questionnaires and instruct the non-nutritionists in their use.

After completion of the nursing home visit, the interviewers score the questionnaires by use of a grading template. The total of the marks which show through the template is the test score of the nursing home. In some agencies the nutritionist may prefer to score the questionnaires.

Each item in each questionnaire bears an equal weight, and the total score is a relative measure of need for dietary consultation. The higher scores indicate a need for consultation, but lower scores do not necessarily indicate superior food service. An individual score on a questionnaire can be interpreted only as a measure comparative to the scores of other nursing homes. Special emphasis should be placed on this feature of the tests since the scores are a measure of greater or greatest need. For instance, if nursing home X has a score of 15, no conclusion can be drawn from this score alone. However, when the score is compared with nursing home Y which has a score of 8, a decision can be made to give consultation first to nursing home X. In any sample of nursing homes the nutritionist should arrange the homes in order by score. As time is available, consultation can be extended to individual homes down the list.

REFERENCE

(*1*) U.S. Public Health Service: Nursing home standards guide. PHS Publication No. 827. U.S. Government Printing Office, Washington, D.C., 1961.