AN EVALUATION OF A TRAINING PROJECT AS REQUIRED BY THE STATE OF TEXAS FOR EXTENDED CARE FACILITIES

A THESIS

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BY

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CHAPTER I

INTRODUCTION

Training has become an important concern of business. Educating employees is expensive and very time consuming, but proves to be worthwhile when compared to the cost of waste and errors due to untrained employees (1). Untrained employees make more mistakes and are more wasteful than trained employees (1, 2, 3). Loss of sales and dissatisfied customers can be great due to untrained employees. Absenteeism, tardiness, and turnover can also be reduced by proper training (1). Training will promote better sanitation and safety in foodservice and can teach foodservice employees safe ways to use equipment and proper sanitation techniques. The loss of monies due to untrained or poorly trained employees can be much greater than the cost of training (1, 2, 3).

Federal and State regulations specify that employees of extended care facilities and intermediate care facilities must demonstrate evidence to the training coordinator that they are knowledgeable and can competently perform skills in specified areas (4). Any employee who does not meet the required skills and knowledge should receive training as necessary in order to obtain these required skills and knowledge (5). This training should improve the understanding of the jobs to be done

and the methods of performing them. Each facility must have a plan for in-service education which begins with orientation and lasts throughout the employment period (5, 6).

The purpose of this study is to develop a training program which can help foodservice employees of extended and intermediate care facilities meet State and Federal requirements. The employees, after completing orientation and training, should be able to pass a standardized skills check-list provided by the State of Texas.

Objectives of this study are as follows:

1. To develop a training program which will enable foodservice employees to pass the skills check-list for the State of Texas.
2. To assess the level of knowledge of the foodservice workers prior to training with a pre-test.
3. To present the instructional material developed to a minimum of twenty-five foodservice employees in nursing homes.
4. To evaluate the effectiveness of the instruction using a post-test and rating scale.
5. To identify criteria to ascertain employees' ability to perform tasks on the skills check-list.

CHAPTER II

REVIEW OF LITERATURE

Training has become more and more a concern of business. Next to public schools and the military, industry is the third largest educational institution (7). Many companies spend millions every year on training personnel. The total expenditures of all firms for training exceeds a billion dollars annually (7). Training is an expensive and time consuming venture. Then why is training becoming more of a concern in the business world? Untrained employees are more expensive over a period of time than the cost of training itself (1, 2, 3).

When evaluating the cost of training versus no training there are several areas to consider. First consider the cost of errors and waste. Trained employees tend to make fewer mistakes and be less wasteful than those who have received no training. Also, mistakes and errors can lead to the loss of sales and customers which can add up to even greater losses. Studies have shown that effective training can help to reduce turnover, absenteeism, and tardiness; all of which are costly to a company (1). Safety and sanitation should also be considered when comparing overall costs. Effective training can teach the proper use of foodservice equipment and safe ways

to use and clean them. Loss due to accidents can be great as well as losses of food and customers due to poor sanitation. "No matter how large this expense is, however, it is cheaper in the long run than costs growing out of waste, errors, turnover, poor sanitation, absenteeism, tardiness, injuries, and customers lost because of untrained or poorly trained employees" (1). Quality food, good service, job pride, and employee commitment are all vital constituents of a successful foodservice business. All of these can be obtained through proper training of employees (1, 2, 3, 4, 8).

Training can help improve job relations and responsibilities and tends to motivate employees. Through a training program employees can get to know each other and their jobs better. Personal relationships established in training programs can result in more cooperative working situations. Also, the responsibilities of a job are transferred from management to the employee through proper training. By providing the employee with the "hows" and "whys" he is able to understand and become responsible for his work. This understanding of a job tends to create interest as well as to promote satisfaction and enjoyment from work. Being "in the know" makes a person feel he belongs and is important. Proper training can help persons feel better about themselves, their employees, their peers, and the company for which they work (2, 4, 9, 10, 11).

Federal regulations require the training of employees in skilled nursing facilities and intermediate care facilities for the purpose of improving the understanding of the jobs to be done and the methods for performing them (6). State regulations in Texas have made orientation, training, and in-service education mandatory for all employees who have any contact with the residents (5). Regulations specify that employees shall demonstrate and/or submit evidence to the facility training coordinator that they have competency in the required skills and have knowledge meeting the requirements of orientation and job specific training. Any employee who does not possess required skills and knowledge shall receive part or all of the orientation or training as necessary to obtain the required competency and knowledge (5). The same is required for new employees. State and Federal governments have established regulations to insure that required training is conducted. Each facility must have a plan for an on-going, in-service education program which begins with orientation and continues throughout the employment period for all staff members (5, 6).

Types of Training Programs

With any training program, there are three kinds of in-service education that should be recognized: orientation, on-the-job training, and staff development (6, 7).

Orientation training should introduce the new employee to the policies and procedures of the organization. This should include information on sick leave, holidays, vacations, and employee benefits. The new employee should be shown where the restrooms and lockers are as well as where to pick up paychecks. He should be given a tour of the facility in order to understand how his job is related to the whole organization. The new employee also should be introduced to the employees with whom he will be working as well as to his supervisor (6).

On-the-job training usually involves someone who is experienced showing the trainee how to do a job. Using the "buddy system", an experienced fellow employee critiques and trains the new employee. With this type of training, the trainee may be introduced to different parts of his job sequentially until he is able to grasp the job as a whole. The weakness of this type of on-the-job training is that the average foodservice employee knows little about the fundamentals of training. The new employee seldom gets the "whys" of what he is to do (12). In this type of training care should be taken to insure that the trainee is not taught incorrectly (7, 12).

The third type of in-service education is staff development which is often utilized as a means of reaching long

range goals and objectives, especially with employees who have the capacity and willingness to learn. Staff development can be the answer to better food quality and service in health care facilities (6). The trainer must set the goals and objectives to be met according to the needs of the facility (13). This type of education is generally a combination of individualized training as well as a course at a community college or university (6, 13).

Learning Theories

Knowledge of the learning process is essential regardless of type of training utilized. "Learning is the process of acquiring skills, knowledge and/or attitudes" (14). As the definition indicates acquiring knowledge and skills are part of the active process of learning. Learning has not taken place until the knowledge and skills are developed and put into action (14, 15, 16).

Learning theories should be taken into consideration when implementing a training program. The student who is indifferent and reluctant to learn will learn little no matter how good the instructor may be. Unrealistic goals can also inhibit learning (7, 14). Since adults learn only when they feel the need to learn, they should be actively involved in or concerned with the subject matter (9). Adult

learners want to see some immediate benefits from the material which they are being taught.

Feedback should be provided so the employee can determine for himself how well he is performing. He should be given immediate feedback and helped to understand that mistakes are understandable and natural (17).

Learning can be most effective when the learner is actively involved in the learning process. Motor activity can directly stimulate the higher mental processes of learning. In fact, the more senses involved in the learning process the more effective it will be. Student involvement in the training session is essential if desired goals are to be obtained. Generating involvement can be the best teaching method available to reach the desired goals because it forces the student to concentrate on the subject (18). Results of studies have indicated that if adults do not have the opportunity to be actively involved in learning they will forget up to fifty percent of what they learned within one year (14, 15, 17, 18, 19).

Training Adults

Adults do not learn the same as children (14). Therefore, the instructor should understand that information is built on knowledge which has already been acquired. The instructor should determine where the trainee is in relation

to the material being taught and then build on that information. Adults learn by solving realistic problems. The information to be taught should be made to relate to the job of the trainee. Meaningful material and tasks are learned more easily and readily than nonsense material (14, 17, 20, 21).

Learning need not be a continuous giving of information. Experiments have shown that learning which is broken down into small segments is more easily retained than requiring the trainee learn all the information at once (7, 17). The length of a single session and the information given in that session should be considered when planning. This enables the trainee to reach subgoals and obtain satisfaction from each part and build up to the total objective (7, 17).

Adults learn best in an environment which has an informal setting (14). This takes away most of the bad connotations associated with school. The meeting room can be arranged in an informal setting such as a U or V fashion to incorporate a climate of warmth, mutual respect, caring and trust. This informal setting can help in getting the trainees to relax and helps promote discussion (14, 21).

Many things should be considered when discussing adult education. The teacher should function as a facilitator by serving as a source of direction and information to the

trainee. A self-development approach should be emphasized when possible since learning is more efficient with this method. The learners should be encouraged to diagnose their own needs for learning and to establish meaningful and attainable goals. The trainees are different, therefore, they will learn at different speeds and with the help of different techniques (23, 24). Adult learners should be guided by the teacher to discover relationships of principles and application of new material (17, 21, 22, 23, 24).

The teacher when presenting information to the trainees should present the whole job and then break it down to concentrate on smaller parts. At the end of each training session, there should be a summary of what was presented, repeating key points and basic philosophies. The teacher should be sure that the trainee is performing the operation correctly. Speed will come with practice (17, 21, 22, 23, 24).

Development of Training Programs

Planning is the primary requirement for a successful training program. Planning involves setting and implementing goals. To insure that a program will be effective the planner should consider: (a) realistic objectives, (b) types of in-service most likely to attain these objectives, (c) appropriate sponsorship, (d) combinations of activities to be employed, (e) characteristics of the target

group, (f) incentives for the trainees, (g) appropriate media, (h) the time factors involved, (i) adequate location and facility, and (j) proper environment (13).

The training sessions should be planned so they do not interfere in or with the work the employee is to perform. A well planned training session should be presented in fifteen to thirty minutes (25). Training sessions can serve as a means of solving problems associated with the working situation or improving working conditions. The first step in planning a good training program is to write objectives. Objectives must focus on the outcome of the learning process and be stated in measurable terms. They should be stated in terms which the trainees can understand. The objectives should be presented to the trainees so they will know what they are to learn and when they have attained the objectives (6, 9).

After objectives have been written the next step is to decide on the length of the program, the number of sessions, and the topics to be covered in each session (25). The material should be organized in a logical sequence and presented so that it is relevant to the group. Some methods of presentation used in teaching today include: lecture, discussion, demonstration-performance, dramatization, role-play, and case studies (20, 26). A combination of training

methods will provide a change of pace and help in stimulating the group (20, 26).

During the planning phase the type of visuals and audio devices which will help in communicating the information to be taught should be considered. Visuals can help to prevent misunderstandings and help in reinforcing or illustrating what is presented (26). Visuals are effective because they appeal to more than one sense at a time. The combination of seeing and hearing will be effective in conveying the message and will help in student retention. There are many types of aids used today. These include blackboards, charts and chart pads, overhead transparencies, slides, filmstrips, felt boards, models, tape recorders, handouts, and videotape recorders (26). A visual is effective only if it reinforces what is being taught and gets the attention of the learner (23, 24, 26).

The last part of planning a training project is to incorporate some form of evaluation. Evaluation is helpful in setting objectives, selecting content, reducing learning time, sequencing of material, checking for omissions, and improving learning effectiveness (27). The evaluation process can be conducted through formal or informal methods. A formal method is a precise form such as a written test and the informal method is evaluation through discussions or

observations of skills. The evaluation procedure reinforces the material and serves to demonstrate the progress made in the training sessions (14, 27).

Sometime during the training session a record book or attendance sheet should be signed by each trainee. Since training is required by some states and the Federal government, these records are to protect the trainer and the facility. "Training is not an end in itself, but a means to an end" (25). Students in a training program should be helped to understand the importance of training and how it can make their job easier and solve their problems. However, a training program will be successful only if learning is desired by the students.

CHAPTER III

PROCEDURES AND METHODOLOGY

Development and Training Program

A training program was developed following the recommendations established by the State of Texas using their Basic Teaching Outline for Nursing Homes and Custodial Care Homes (5). The training program meets the requirements specified by the State of Texas in the licensure standards amendments section 1, article 4442c. The training program was designed specifically for training foodservice employees in extended care facilities. There were five basic areas which were developed in the training program. These included: specific needs of nursing home residents, normal and therapeutic nutrition, sanitation principles and standards, use and care of equipment, and quantity food principles and techniques (Appendix A & B). Different teaching techniques were used which consisted of lecture, discussion, demonstration, practical exercises, and slide/tape presentations (Appendix C). Lectures and other presentations were reinforced by the use of charts and handouts (Appendix D).

Development of Assessment Instruments

Assessment of knowledge of the foodservice workers prior to training was determined by a pre-test. The pre-test

consisted of multiple choice, fill in the blank, true/false, and short answer questions (Appendix E). The pre-test measured knowledge of important concepts which were to be covered in each area of the training program.

To evaluate the test's validity the pre-test was administered to a group of five consulting dietitians for extended care facilities. Each dietitian was given the test without the answers and was asked to answer and rate the test. All questions were answered correctly and evaluations on the test were all positive. Two more questions on therapeutic diets were added by the recommendation of one dietitian. Following completion of the training program, the same test was given to the foodservice workers to assess the degree of knowledge gained.

Criteria was established for the Skills Check-list which is required by the State of Texas in order to certify nursing home and extended care facility workers (Appendix F). At least two criteria was used two weeks following the post-test in order to determine if foodservice workers had skills and knowledge necessary to become certified by the State.

A hedonic rating scale was developed and administered to trainees following completion of the training program. This instrument was used for evaluating the effectiveness of the total training program (Appendix G).

Location of Participants

To obtain subjects who were presently employed in extended care facilities and required training for certification by the State of Texas, a letter was sent to extended care facility administrators in the Dallas and Irving city limits (Appendix H). An outline of the proposed presentation and an agreement form accompanied each letter (Appendix A and I). Due to poor response, the researcher telephoned most of the administrators who had been sent a letter. Four extended care facilities responded out of the 39 which were contacted. There were a total of 37 employees who were to receive the training.

The purpose of the training program as outlined in the Human Subjects Committee Guidelines was explained to each participant. The extended care facility employees indicating a willingness to participate in the training program signed a consent form (Appendix J).

Presentation

The training program was presented during a two week period and consisted of ten sessions. Each session was forty five minutes to an hour in length. There were five basic areas and each area consisted of two training sessions. After each topic was completed, a short test was given as a means of reinforcing the material. Following the test,

each student graded his own paper. The questions were then discussed to provide immediate feedback and correct any misunderstanding of concepts presented.

After completion of the training program and following the post-test, all participants were asked to evaluate the training program. A rating sheet with a hedonic scale was developed for this purpose (Appendix G). All scores on the hedonic rating scale were tabulated as well as the post-test and pre-test.

Evaluation

Assessment of knowledge gained due to the training program was determined, in part, by the degree of improvement in the pre-test and post-test. Criteria was identified for each task on the State of Texas Skills Check-list. Two weeks following the post-test, employees were observed and evaluated utilizing the criterion identified. The completion of the skills check-list was utilized to ascertain if the material presented in the classroom was transferred to the working situation and daily activities of the trainees. If employees successfully completed the criteria required for a foodservice employee in an extended care facility, they became certified by the State of Texas.

Statistical Analysis

A one-sample *t*-test on the scores was used to test the difference between the paired pre-test and post-test. Descriptive statistics was used to analyze performance on pre- and post-test and the results of quality assessment of training program.

CHAPTER IV

RESULTS AND DISCUSSION

A training program as outlined in Appendix A was presented to a total of thirty-nine foodservice workers in three Dallas extended care facilities. Of the thirty-nine persons who began the program, sixteen completed the training program. Results are based on the forty-one percent of participants who completed the program.

A pre-test (Appendix E) was utilized to measure the knowledge before the training program was initiated. The same test was administered to participants upon completion of the training program to measure the amount of knowledge gained. Other factors could have affected learning or knowledge gained, such as attitude, ability, and work experience during the time the training program was presented. A paired t test was used to determine if a significant difference existed between knowledge before and after training.

Three extended care facilities contacted by letter requested the training program be presented to their foodservice employees. These are described as facility A, B, and C. Facility A was a skilled extended care facility with a bed capacity of 208 and a total of sixteen foodservice employees. Of the sixteen foodservice employees in facility

A, eleven completed the training program. Facility B was an intermediate care facility and had a bed capacity of 92. There were seven foodservice employees in facility B and out of the seven, five completed the training program. Facility C was a skilled facility with a bed capacity of 210 and a total of seventeen foodservice employees who needed the training. None of the employees from this extended care facility completed the training program.

There were employee problems such as absenteeism, lack of motivation, and turnover in facility C that impeded the completion of the training program. Even with the encouragement of the facility's training coordinator only two employees attended three of the ten training sessions presented during the initial two weeks. The remaining fifteen employees attended less than three training sessions. Due to the apathy of the employees toward training, the researcher did not present make-up sessions at this facility. Facility C was not included in the analysis of results of the training program.

The training program was presented during a four week period. Two weeks were used to present the training program which consisted of ten sessions of forty-five minutes to an hour in length. At the beginning of the initial session, a

description of the training program was read and explained to the trainees. Trainees agreeing to participate were requested to sign a consent form. During the third week, make-up sessions were presented. Two sessions per day were scheduled so all sessions could be covered again. The fourth week was used to cover any session missed which were still needed by the participants. This week was not originally intended to be used to complete make-up sessions, but due to attendance problems more than one make-up session was needed for some areas. During the fourth week persons who had completed all sessions were evaluated utilizing the skills check list required by the State of Texas. Those persons who required make-up sessions after the third week were evaluated during the fifth week. The short time span between completion of all sessions and the administration of the skills check list was necessary to determine if trainees would apply the knowledge acquired during the training program to the work environment.

As illustrated in Tables 1 and 2, of the sixteen persons completing the entire program, thirteen passed the skills check list. This indicates that training was effective and did help to improve skills in the area of foodservice. The three persons who did not pass the skills check list performed unsatisfactorily in the areas of orientation and client evacuation of the facility. This

TABLE 1

CORRECT SCORES, PERCENTAGE CORRECT RESPONSE, MEANS STANDARD DEVIATIONS AND RANGES OF PRE-TEST, POST-TEST, AND GAIN, AND PERFORMANCE ON SKILLS TEST OF PARTICIPANTS IN FACILITY A

Subject	Pre-Test		Post-Test		Gain		Performance on Skills Test[b]
	Score[a]	%Correct	Score	%Correct	Points	%Gain	
A1	18	37	38	80	20	43	F
A2	37	78	46	98	9	20	P
A3	15	30	41	87	26	57	F
A4	17	35	42	89	25	54	P
A5	32	67	44	93	12	26	P
A6	19	39	34	72	15	33	F
A7	21	43	40	85	19	42	P
A8	16	33	39	83	23	50	P
A9	6	11	37	78	31	67	P

TABLE 1 (continued)

CORRECT SCORES, PERCENTAGE CORRECT RESPONSE, MEANS, STANDARD DEVIATIONS AND RANGES OF PRE-TEST, POST-TEST, AND GAIN, AND PERFORMANCE ON SKILLS TEST OF PARTICIPANTS IN FACILITY A

Subject	Pre-Test		Post-Test		Gain		Performance on Skills Test[b]
	Score	%Correct	Score	%Correct	Points	%Gain	
A10	14	28	41	87	27	59	P
A11	7	13	28	59	21	46	P
Mean	18.36	37.64	39.09	82.82	20.73	45.18	
SD	9.28	--	4.93	--	6.68	--	
Range	6-37	11-78	28-46	59-98	9-31	20-67	

a Highest Possible Score on Pre-Test and Post-Test was 47

b Performance on Skills Test was Either P for Passing or F for Failing

TABLE 2

CORRECT SCORES, PERCENTAGE CORRECT RESPONSE, MEANS, STANDARD DEVIATIONS AND RANGES OF PRE-TEST, POST-TEST, AND GAIN, AND PERFORMANCE ON SKILLS TEST OF PARTICIPANTS IN FACILITY B

Subject	Pre-Test Score[a]	Pre-Test %Correct	Post-Test Score	Post-Test %Correct	Gain Points	Gain %Gain	Performance on Skills Test[b]
B1	36	76	42	89	6	13	P
B2	8	15	37	78	29	63	P
B3	24	50	31	65	7	15	P
B4	27	59	39	83	11	24	P
B5	32	67	37	78	5	11	P
Mean	25.60	53.40	37.20	78.60	11.60	25.20	
SD	10.81	--	4.02	--	9.99	--	
Range	8-36	15-76	31-42	65-89	5-29	11-63	

a Highest Possible Score on Pre-Test and Post-Test was 47

b Performance on Skills Test was Either P for Passing or F for Failing

area was not included as part of the training program, but was to be presented by the training coordinator of each facility.

All persons participating in the training program showed improvement. The mean gain in knowledge based on pre- and post-test scores was 38.94%. Results of the *t* test indicated that the participants had significantly ($p \leq .01$) higher scores on the post-test. The null hypothesis, there will be no significant differences between pre- and post-test scores was, therefore, rejected.

The mean gain in knowledge as illustrated in Table 3 from the time of the pre-test to completion of the training program and the post-test was 17.88 points out of a possible forty-seven points. The pre-test gain in knowledge, as illustrated in Tables 1 and 2, was sixty-seven percent while the lowest gain in knowledge was eleven percent. As illustrated in Table 3, none of the participants scored above eighty-five percent on the pre-test while 43.75% employees attained this level of performance on the post-test. This indicates a significant ($p \leq .01$) gain in knowledge following the presentation of the training program. As indicated in Tables 1 and 2, thirteen foodservice employees out of the sixteen completing the training program passed

TABLE 3

MEAN, STANDARD DEVIATION, AND DISTRIBUTION
OF SCORES FOR FACILITY A AND B

	Pre-Test	Post-Test	Gain
Mean	20.63	38.50	17.88
Standard Deviation	9.41	4.53	7.51
% Scoring Above 85%	0	43.75	--
% Scoring 75-84%	12.50	37.50	--
% Scoring Below 75%	87.50	18.75	--

n = 16

the skills check list to become certified by the State of Texas. This seems to indicate that knowledge gained during training was transmitted to the working environment.

After completion of the training program all participants were asked to evaluate the program using a hedonic evaluation sheet (Appendix G). All scores on the hedonic rating scale were tabulated and are shown in Table 4. The participants' overall rating of the training program was good. There was sixty-three percent who rated the training program as very good; twenty-five percent, good; and only twelve percent, average or below. Out of the sixteen persons to complete the evaluation form, there was one person who rated all areas of the program as poor. All other participants rated every areas as average or above.

Comments made by the trainees during the training gave other information on areas which were not covered in the evaluation form. In one facility, a choking victim was helped by a foodservice worker who had learned what to do for a conscious victim from the information given in the training program. In this facility the foodservice workers became more attentive to information given during the training program, because of their increased awareness of

TABLE 4

RESULTS OF PROGRAM EVALUATION

	A	B	C	D	E
1. Material covered held interest	69	19	6	0	6
2. Material covered will be useful in work	63	31	0	0	6
3. Handouts and teaching aids were effective	69	19	6	0	6
4. Teacher held interest and was understood	82	6	6	0	6
5. Program was well planned and easy to follow	68	13	13	0	6
6. Overall evaluation of the program	63	25	6	0	6

a Responses Range from A for Very Good to E for Poor

the importance of information being presented. Another comment made by several foodservice workers was that they had applied the work simplification techniques taught and found that they really could save time and energy by using these techniques.

Several problems were encountered during the presentation of training program. In one facility there were three Spanish-speaking foodservice workers. It was very difficult to convey the information to these employees since the trainer could not speak Spanish. An interpreter was used, but since she was also participating in the program the information was difficult for her to convey. The pre-test and post-test could not be used since it was not interpreted into Spanish. These employees seemed to be disinterested in the program due largely to communication problems. Teaching aids used in the training program were also not designed specifically for the Spanish-speaking foodservice workers. These foodservice workers were not included in the results of the paired t test since they could gain only a limited amount of knowledge. The Spanish-speaking interpreter did successfully complete the program.

Another problem which was encountered was the limited reading and writing skills of the foodservice workers. This

could have easily affected the results of the paired *t* test. The foodservice workers who had problems with reading and writing skills were not detected at the time of the pre-test. By the end of the training program, the researcher knew the employees with reading or writing difficulty and was able to assist them in completing the post-test. At the time of the post-test, the researcher read the questions to the employees who had problems reading or writing. The researcher obtained verbal response to the questions from foodservice workers who could not write and recorded them on the evaluation instrument. Besides the pre-test and post-test, this presented few problems. There were short tests used during the training program as teaching aids. The trainees were encouraged to ask for any assistance during these tests. After completion of each of these tests, the questions and answers were discussed in order to provide feedback and alleviate any misconceptions. The handouts would have been more effective if reading skills were not a limitation. Handout material was often not discussed in detail and provided additional information not included in the training session. Knowledge of additional information which was not discussed during the training session was not evaluated.

Attendance was the major obstacle encountered. Scheduled days off, illness, personal problems, and shortage of

personnel were reasons attendance was poor at many of the training sessions. Since the main priority of the food-service employees was to prepare meals for residents, some participants missed sessions when they had to perform tasks of absent employees. The second week of make-up sessions provided an opportunity for more employees to complete the training program.

The time scheduled for training sessions appeared to be a critical factor influencing attendance. Training sessions at facility B were held at 10:00 a.m. The employees who worked the evening shift had to come to work early to attend the training sessions. Facility A's training sessions were presented at 1:00 p.m. This seemed to be the most desirable time for training since shifts over-lapped at this time. Attendance was best at this facility. The training sessions scheduled at 2:30 p.m. at facility C had the poorest attendance. Employees on morning shifts had to stay an hour overtime in order to attend training sessions. Administration, however, did pay employees who attended training sessions which should have reduced absenteeism. In addition to poor attendance, turnover was another problem experienced. Six of the thirty-nine partici-pants who started the training program were terminated or quit before completing the program.

CHAPTER V

CONCLUSION AND RECOMMENDATION

Training can greatly affect the skills of foodservice workers. Out of the sixteen persons who completed the two week training program, thirteen successfully passed the skills check list required by the State of Texas for certification as a foodservice worker in an extended care facility. The knowledge gained during the training sessions appeared to be transferred to the work environment as indicated by the number of participants passing the skills check list. Application of information included in the training program should assist employees in providing the residents of extended care facilities with high quality food and service.

Training can be effective if utilized in the correct manner. A program that provides the employee with information necessary to help make his/her job easier is more likely to be successful in maintaining interest than programs unrelated to job tasks. Information presented at a time that does not interfere with the work to be done seems to be assimilated more readily. The participant can concentrate on the information presented rather than thinking about what he/she should be doing at the time

of the training sessions. Regularly scheduled training sessions seem to be an affective method of assisting the employees in obtaining knowledge and skills necessary to provide quality care to residents of extended care facilities.

An area of research which should be considered for future study is the development of a training program for Spanish-speaking foodservice employees in extended care facilities which meets State requirements. This seems to be a much needed program in the Southwest, where Spanish-speaking citizens make up a large part of the work force. By development and implementation of this type of program, a large segment of the work force can be better utilized in extended care facilities.

Reading and writing skills are often a problem in training foodservice workers. Limited research has been conducted regarding the training of foodservice workers who lack these skills. The identification of training techniques and teaching aids most appropriate for these workers is another area which could be investigated further.

Atteneance was a major problem in this research program. Research similar to Hopkins et. al. (28) that deals with the attitude of employees toward training is another area for future study. The research found that most foodservice workers attended the training because it was required by their employers. Most of the foodservice workers who successfully completed the training and passed

the skills check list to become certified by the State received no compensation in salary or advancement. Contrary to the funding of Hopkins et. al. (28), the researcher, postulates based on observation of foodservice employees in extended care facilities that a career ladder and salary compensation for achievement made in areas which would improve work performance could be used to promote a desire to learn and advance in the foodservice industry. Without these motivation tools, many persons who have a desire to remain as a foodservice worker will look for better opportunities in other areas. With an opportunity for a career and a competitive salary the foodservice industry can help to retain employees who have the knowledge, skill, and desire to work in foodservice. Otherwise, the quality of the foodservice worker will always remain a problem.

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APPENDICES

Training Program
Appendix A

I. Specific needs of nursing home residents
   A. The aging process
   B. Social and psychological needs
   C. Food preferences
   D. Food service as part of the health care team
      1. Your attitude and you
      2. Courtesy costs nothing
   E. Choking

II. Safety
   A. Safety in the dining room
   B. Safety in the kitchen

III. Normal and therapeutic nutrition
   A. Basic four food groups
   B. Calories
   C. Nutrients
   D. Therapeutic diets and use of the diet manual
   E. Nourishments

IV. Sanitation principles and standards
   A. Sanitation
   B. Personal hygiene
   C. Equipment and dish sanitation
   D. Time and temperature control
   E. Food storage and handling
   F. Infection control

V. Use and care of equipment

A. Use and care of the dishwasher

B. Use and care of kitchen equipment

C. Cleaning schedules

D. Work simplification

VI. Quantity food principles and techniques

A. Food preparation

1. Use of standardized recipes

2. Preparation schedules

3. Meat preparation

4. Fruit and vegetable preparation

B. Food service procedure

1. Food temperatures

2. Portion control

3. Tray assembly

4. Food transportation

5. Collection of dirty dishes

Specific Needs of Nursing Home Residents
Appendix B

I. The aging process

A. The older a person is the more complex his nutritional requirements

1. There is a slowing down of the metabolic process and a lack of physical activity which results in the need for fewer calories

2. They still need all the nutrients that are required, therefore, care should be taken to provide nutrients without excess calories

a. Essential to limit the use of high caloric density foods such as candies, cakes, rich desserts, fats, and alcohol

b. Use desserts such as puddings and custards made with skim milk, more fruit desserts and gelatins; also low calorie salad dressings and less gravies and sauces to reduce calories and still provide the needed nutrients

c. Special attention should be given to provide enough protein in the diet by use of skim milk, cheese, and eggs

d. Adults still need calcium and should be given milk products daily (This can be incorporated into foods and often older persons like

buttermilk and yogurt which are easy to digest. Some people have a hard time digesting milk.)

e. They have a decreased sensitivity to taste and smell which reduces the pleasures of eating, therefore, special care should be taken to provide for the likes and dislikes of these clients

B. Social and psychological needs

1. Although taste is diminished or decreased in the elderly there are still social connotations related to food--such as conversation and rememberences of social eating pleasures

a. Care should be taken to provide the best setting possible for their eating so as to promote conversation and hopefully reduce depression which is so common in institutionalized elders

b. For many the high point of each day will be the time spent during meals

c. Special attention should be given to food likes and dislikes to help promote consumption

II. Discussion on likes and dislikes of residents and reasons why some foods are disliked

III. Food service and the part you play in it is a much needed part of a health care team. Food service has the responsibility of providing good care for each client

IV. Choking

A. Signs to look for

B. What to do

V. Safety means freedom from accidents

A. In the dining areas

1. Keep walk ways free from objects
2. Wipe spills up immediately
3. Report needed repairs which could cause accidents

B. In the kitchen

1. Keep floors clean and dry
2. Close cupboard and storage area doors when not in use
3. Never place objects where they may fall
4. Have adequate lighting
5. Maintain good housekeeping to reduce hazard of fire
   a. Locate fire extinguishers
   b. Be able to use fire extinguishers
   c. Use the correct extinguisher for the job
6. Keep electrical cords out of walk and work areas
7. Report any needed repairs
8. Practice proper lifting
9. Use carts to carry heavy objects

10. Never lift objects which are too heavy
11. Never stand on boxes and crates--use a ladder or stool
12. Take caution not to mix cleaning agents
13. Store cleaning items away from food items and paper supplies
14. Have labels on all bottles and cans
15. Use the proper equipment for the job
16. Use cutting board and never cut toward the hands
17. Use dry cloths, mitts and pot holders
18. Lift lids away from body
19. Unplug electrical equipment before cleaning
20. Turn handled cooking utensils away from the fire and away from the edge of the range

Normal and Therapeutic Nutrition

I. Normal Nutrition
   - A. Importance
   - B. Food supplies basic nutrients
     1. Water
     2. Protein
     3. Fats
     4. Carbohydrates
     5. Minerals
     6. Vitamins

II. Basic 4 food groups

A. Introduction to basic 4

B. The meat group

C. The milk group

D. The fruit and vegetable group

E. The bread and cereal group

III. Amounts for the aged

A. Calories

B. Good health

IV. Questions and answers

V. Record what you ate for dinner and divide into food groups

VI. Therapeutic diets

A. Kinds of diets most often used

1. Soft--used for gastrointestinal problems and infections

a. Fat rich foods avoided

b. Avoid bran and strong vegetables

c. Avoid raw vegetables and fruit

d. Few or no spices and no condiments

2. Mechanical soft--used for patients with chewing problems

a. No salads--substitute with cooked vegetables and juices

b. Puree less tender meats and vegetables

3. Liquid
   a. Full liquid--used with acute illness, gastro-intestinal problems or heart problems
      1. Use strained cooked cereals, fruit and vegetable juices, broth, cream soups, eggnog, custards, ice cream, jello
   b. Clear liquid
      1. Use broth, juices, plain jello, tea, coffee, soft drinks
   c. Require feeding every 3-4 hours
4. Bland--used for patients with an ulcer
   a. Food to avoid are fatty foods, smoked and preserved meats, raw vegetables, raw fruit except bananas, rich pastries, candies and preserves, alcoholic drinks, and spices--pepper and catsup
   b. Foods allowed
      1. Low in fiber and connective tissue (i.e. pudding, white bread, milk, roast beef, fruit juice)
      2. Little or no condiments or spices (except salt in small amounts)
      3. No high acid foods--tomatoes and oranges
      4. Foods simply prepared (i.e. plain cake instead of iced cake, baked chicken

instead of fried, plain food instead of those with sauces and gravies)

c. Usually between meal snacks required

5. Low sodium--used with patients who have heart failure or have the problem of retaining excessive fluid

a. Require use of low sodium foods which have been specially processed

b. Milk, meat and eggs are high in sodium, but given in limited amounts--avoid smoked meats, ham and luncheon meats, franks and sausage

c. Follow diet patterns carefully and make sure you use foods labeled as low sodium

d. There are different levels of low sodium diets; some common prescriptions are 2 gms. and 4 gms.

e. The consulting dietitian will plan menus for clients on sodium restricted diets

6. Low fat--used for clients with heart problems

a. Limited in amount of fats--no fat exchanges such as butter, margarine, cream, cheese, avocadoes, bacon, salad dressings, oils or fats for cooking, nuts, olives

b. May require limited cholesterol which limits milk products, eggs, and fatty meats

c. Some require limited use of desserts or sweets

d. Use lean meats, fruits, vegetables and bread

7. Low residue or low fiber--used for patients with chewing problems as well as for ulcers and bowel problems

   a. Fruits, vegetables, nuts and whole grains are high in fiber (bananas and potatoes are low in fiber)

   b. Low fiber reduces the amount of bulk in the intestine

8. High fiber diet--used for constipation and a narrowing of the bowel

   a. Good sources of fiber are wheat bran, unrefined breakfast cereals, whole wheat and rye flours, also raw and dried fruits, raw vegetables and legumes

9. Diabetic or low calorie (a low calorie diet is used for weight loss where a diabetic diet is to stabilize the type and amount of foods consumed)

   a. An exact amount is usually prescribed by the doctor and must be followed in order to lose weight or stabilize the amount of insulin required

b. Skim milk is used, along with lean meats (not fried or prepared with oils), vegetables and fruits without added sugar (these are labeled if canned), bread exchanges are limited according to the calories designated for the diet (these include potatoes, dried beans, rice and pasta). Substitutes can be made easily within the same group (use a diabetic exchange list).

B. Use of the diet manual

1. A diet manual serves as a guide to the kinds and amounts of foods and beverages a client may have according to his diet order
2. Should be used by foodservice workers in order to provide the best possible care of the clients. If rotating menus are used they will usually have a menu marked for the day according to the type of diet prescribed

C. Diet prescriptions or diet orders

1. Are ordered by the physician according to the client's condition
2. The dietitian is there to consult with the doctor about the orders. She may only be in your facility for a couple of hours per month.
3. It is your responsibility to put the required amount of food on each plate

VII. Nourishments

A. Are figured into the diet order and should always be given. The extra nutrients these nourishments provide are needed by the client and the purpose of them is to provide these needed nutrients.

B. There are morning, afternoon and evening snacks

C. Some commonly used nourishments include: milk shakes, cheese and crackers, milk, cereal, ice cream, fruit juices and fruit

Sanitation Principles and Standards

I. Sanitation

II. Personal hygiene

III. Oral questions and discussion

IV. Equipment and dish sanitation

V. Slides on time and temperature control

VI. Food storage and handling

A. Refrigeration and freezer--slows down deterioration of foods

1. Ventilation

a. Food stored to permit air to flow around it

b. Food should not be placed against sides or in corners

2. All foods should be rotated so items can be used on a first in first out basis

3. Cleaning
    a. Protect food from off flavors (for sweet smelling refrigerator)
    b. Warm water and baking soda for daily cleaning
    c. Avoid soaps or cleansers with an odor
    d. Clean all surfaces of the interior weekly

B. Dry storage
1. Poisonous and toxic materials
    a. Stored outside food storage or preparation areas and used for no other purposes
    b. Store cleaning compounds and insecticides separately
2. Temperature
    a. 50-70° F recommended
    b. If temperature too high, keep sunlight out and close heating vents
3. Ventilation
    a. Air should be able to move through area to allow for circulation
    b. Shelves off floor (no supplies should be stored on floor)
        1. To facilitate cleaning
        2. Reduce possibility of damage to food by water or contamination by condensation, leakage, rodents or vermin
        3. Keep clean to prevent spread of bacteria

VII. Infection control (cross contamination)

A. Proper handwashing

1. To prevent spread of bacteria

2. Use of gloves

B. To prevent spread of bacteria

1. Use heat

2. Germicides (rinse after use)

3. Chlorination

VIII. Discussion and short questions (cover all of sanitation)

IX. Tour of kitchen

Use and Care of Equipment

I. Use and care of the dishwasher

A. Care must be taken to insure that dishwashing procedures are carefully followed and proper cleaning of a dishwasher is done to prevent cross contamination

B. Chemicals used in the dishwasher and correct temperatures are the agents that sanitize dishes

1. Check water temperatures regularly as well as detergent and chemical dispensers

2. For best results water of 160° F is used for washing and 180° F for rinsing (wash water must be at least 140° F and rinse water 170° F)

C. Prepare dishes for washing

1. Scrape dishes or run through a prewash cycle
2. Soak silverware with business end down if in baskets and have business end up for washing. May need to wash silverware twice (run through once in a rack then place in baskets and run through again)
3. Soak any other needed dishes such as pans and serving utensils

D. Air dry clean dishes to prevent cross contamination of towel drying

E. Employees should always wash hands after loading and before putting away clean dishes (if one person is responsible for loading and unloading the dishwasher, you can use a pall of chlorine bleach and water to dip hands in between loading and unloading)

F. Store and handle dishes, glasses, and silverware properly

1. Handle silverware by handles only
2. Clean cups, glasses, and bowls should not be touched by hands on lips and inside surface
3. Store dishes where they are not likely to be cross contaminated or where they are away from dust and splash

G. Clean dishwashers every day and check jets and drains

II. Care of kitchen equipment

A. Ranges and grills

1. Ranges are used often where there is alot of pan cooking required (i.e. sauces, frying of eggs)

2. For best performance and sanitation cleaning of ranges need to be done frequently

a. Grease troughs and drip pans should be removed and cleaned daily (can wash in pot sink in same manner)

b. Spills should be wiped up as quickly as possible to prevent hardening and to allow for better safety

c. Range tops should be cleaned daily

1. Do not use steel wool as it may damage the surface and leave particles which could get into food

2. Be cautious of scouring powder so as not to clog small holes which will prevent the free flow of gas (should have a blue flame)

3. Griddles should be cleaned with a mild detergent and clean cloth and rinsed with a cloth rung out of clean water and then seasoned before use

a. To season, preheat griddles to 400° F and brush with a thin layer of oil, allow it to remain on for 2 minutes and wipe off excess oil, then repeat

4. Clean griddle with a wire brush or flexible spatula after each use

5. Thoroughly clean and wipe out the grease trough, drip tray, and grease pan daily. Thorough cleaning can be done with a pumice or griddle stone by rubbing in direction of the grain of the metal while still warm. Do not use steel wool.

B. Ovens and broilers

1. Ovens should be preheated adequately and food placed inside so pans do not touch each other or the sides of the oven to ensure uniform circulation of heat

2. Keep the oven interior and shelves wiped or brushes clean. When necessary use a scraper, wire brush or spatula to remove soil if recommended by the manufacturer

3. Do not pour water or use a soaking wet cloth inside the oven

4. Remove food grease, or carbon deposits from valves, door handles, and edges of the doors to allow for complete closure

5. Thermostats should be checked regularly.

C. Steamers

1. Can be used for cooking many fruits and vegetables
   a. Thaw and separate, if possible, frozen masses of food (i.e. thaw broccoli in refrigerator and separate before cooking)
2. Operation
   a. Check the source of the steam supply
   b. Preheat the cooking equipment, the handle that locks the door closure operates the steam valve for safety
   c. To open the compartment door, push steam valve handle back, revolve the door wheel or bar until loose and release latch. To close and seal door shut the door, rehook latch and turn wheel or bar clockwise. To turn on steam pull valve handle forward (do not tighten door sealer excessively as it wears gaskets quickly)
   d. At end of cooking turn off gas valve or electric switch and close external steam supply
3. Care and cleaning
   a. Flush out boiler at least weekly
   b. Turn off heat supply

c. Close water supply valve and open drain valve to let pressure force water, steam, and impurities out of boiler

d. Allow the boiler to cool 15 minutes before opening the water supply valve to refill the boiler. Never allow cold water to enter a hot, empty boiler.

e. Allow steamer to cool before cleaning. Then wash thoroughly with warm water and detergent, rinse well, and allow to air dry

f. Remove shelves and shelf supports for cleaning at pot area and replace being sure they are firmly in place

g. Leave doors open slightly when not in use to allow for drying and prolong life of gaskets

h. Occasionally oil door wheel screw

D. Slicers and choppers

1. When using a slicer never press food against the slicing blade with your hand (dangerous and prevents uniform slices)

2. Adjust the knob on the face of the machine for desired thickness of slices

3. Before taking off parts for cleaning be sure to turn off and unplug slicers and choppers, then loosen bolts and remove knife guards and the chute for cleaning

4. All surfaces of slicers and choppers should be cleaned with detergent and warm water, rinsed well and air dried thoroughly, then reassembled immediately so ready for use
5. Follow manufacturer's directions for oiling

III. Cleaning schedules

A. Use cleaning schedules to help prevent the spread of dirt and germs

B. Reduces possibility of forgetfulness. List all equipment to be cleaned and the person to perform the job

C. Three types of equipment to be cleaned

1. Equipment which touches food such as grinders, slicers, choppers, can openers, mixers, and chopping boards. These should be cleaned immediately after use.
2. Equipment used in cleaning other equipment such as a dishwasher. This should be cleaned daily and kept clean of grease and food particles
3. Heating or holding equipment such as ovens, ranges, fryers, refrigerators, freezers, and steam tables. Inside and outside should be cleaned thoroughly and regularly and all gaskets should be kept clean to reduce deterioration

D. All shelves, window seals, walls, cabinets, storage areas, tables, carts, vents, ventahoods, and floors

should be included on the cleaning schedule and require regular and thorough cleaning

IV. Work simplification is the process of making a job easier

A. Look for ways to simplify tasks but make sure you keep sanitation rules in mind

1. Greater efficiency can save time, money, energy, and aggravation
2. Eliminate, combine, rearrange, and simplify steps in preparation and handling of food for better efficiency
3. Each job has three parts: make ready, do, and put away

B. Don't be afraid to try new approaches if you think it will save time and energy

C. Decide which approach is best

D. Principles

1. Make rhythmic and smooth-flowing motions
   a. Circular or figure-eight strokes use less energy than back and forth strokes
2. Make both hands productive at the same time (both hands should work together beginning and ending motions at the same time)
   a. Set up work area with needed equipment and supplies
   b. Use both hands

3. Make hand and body motions few, short, and simple (i.e. cut biscuits in the baking pan instead of rolling, cutting, placing, and rerolling excess)
4. Maintain comfortable working positions and conditions
   a. When your spine is straight there is a minimum of strain
5. Locate materials for efficient sequence of motions
   a. Locate materials and food for a job all at once
6. Use the best available equipment for the job
   a. Choose equipment of the proper size
   b. Use carts instead of carrying heavy objects or large amounts of food or equipment
7. Locate activity in normal work areas when possible
   a. Have items in normal reach so you do not have to strain
8. Store materials in an orderly manner
   a. Store frequently used items in the work areas where they are used most
   b. Store seldom used items in a store room

Quantity Food Principles and Techniques

I. Food preparation

   A. Preparation schedules

1. Tell you what items are to be prepared, how much of each item is needed for the amount of servings required, and what method of preparation is used

B. Meat preparation

1. Use methods that
   a. Preserve nutrients
   b. Develop rich flavor
   c. Give a good appearance
   d. Develop tenderness
   e. Preserve juices
2. Moist-heat cooking
   a. Braising, boiling, and stewing are moist-heat cooking
   b. Use low temperatures; do not boil but simmer
3. Dry-heat cooking
   a. Cook at a constant 300° F temperature
      1. Center will reach 140° F for rare, 160° F for medium, and 170° F for well done in roast beef (use a meat thermometer to check)
   b. Use correct size of pan so meat juices are not lost in the oven or spread so thin that they dry out and char

c. Use a rack to hold meat off bottom of pan and place fat side up

d. Allow roast to stand 15-20 minutes before slicing

4. Grilling

a. Use moderate temperatures from 325°- 350°

b. Can be used for hamburgers and thin steaks

c. Turn only once and do not apply pressure (this will keep in juices and prevent dry meat)

5. Broiling

a. Used to cook expensive and tender cuts of beef, chicken, and some fish

6. Deep fat frying

a. Used to fry breaded steaks, chicken, pork, and fish

b. Fry at 350° F for best results

C. Vegetable and fruit preparation

1. Are an excellent source of nutrients as well as the fact that they add color and variety to meals

2. Cutting and paring will speed deterioration so should not be held after paring, but used as soon as possible

3. Boiling and steaming are methods most often used
   a. Cook only until tender crisp to retain vitamins and appearance
   b. Place in boiling water and use only a minimum of water
4. When cooking fruit use a medium sugar solution to retain firmness and inhance flavors
   a. When water alone is used fruit will not retain firmness
   b. Too much sugar will mask flavors and toughen fruit
5. Baking is often used for potatoes, summer squash, and casseroles. Follow recommended temperature
6. Frying is a common method of cooking potatoes and some fruits and vegetables with batter
   a. The shorter the cooking time the less oil will be absorbed
   b. Recommended cooking temperature is 350° - 375° F
   c. Oil is expensive and should be properly cleaned and stored after use (filter or strain to clean oil)
   d. Prevent oil from smoking (this breaks down the oil and destroys the flavor)

7. Sauteing is grilling or pan-frying in a small amount of oil and is used alot in breakfast foods such as hash browns
8. Broiling is used for tender fruit and vegetables and can add variety to a meal (i.e. broiled grapefruit is good for breakfast)

D. Standardized recipes are among the most valuable possessions of a well run food establishment
1. These recipes have been tested and adjusted to produce a high quality product for the desired number of portions of a specified size
2. If mistakes are found in a standardized recipe it should be brought to the attention of management so it can be permanently changed.
3. Diet orders are calculated from these recipes and a change would result in a change of nutrients which the client may not need

II. Food service

A. Food temperatures should be appropriately hot or cold to insure good sanitation and palability or acceptability by the clients. Serve hot foods hot and cold foods cold.

B. Portion control

C. Tray assembly

D. Food transportation

1. During transportation food must remain at temperatures above 140° F if hot and cold foods below 45° F
2. There is special equipment designed for food transportation

E. Collection of dirty dishes

1. Prevent cross contamination with clean dishes and food
2. Scrape all dishes and soak silverware and pots or pans if required to loosen food

Teaching Strategies and Materials
Appendix C

Day 1--Specific needs of nursing home residents I. and II.

Lecture and discussion

Day 2--III., IV., and V.

III. Lecture. Attitude and courtesy slide/tape

IV. Demonstration with charts

V. Lecture with charts

Day 3--Normal and therapeutic nutrition

I. Slide/tape. Then break with nutritious snacks

II. Slide/tape

III. Lecture with charts

IV. Discussion--questions and answers

Day 4--V. Discussion

VI. Lecture and film on diabetic diets and also will show tables of low sodium foods. (Handouts for each diet and exercises using menus)

B. Show diet manual

VII. Lecture

Day 5--Sanitation principles and standards

I. Slides

II. Flip chart

III. Discussion

Day 6--IV. Slide/record

V. Slide/tape

VI. Lecture with charts

VII. Lecture and demonstration

VIII. Questions and discussion

IX. Tour of kitchen

Day 7--Use and care of equipment

I. Tour of dishroom with lecture and demonstration

II. Demonstration and lecture

Day 8--III. Lecture and show cleaning schedule

IV. Lecture and try work simplification techniques in order to compare the difference

Day 9--Quantity food principles and techniques

I. Show preparation schedule, lecture and charts on cooking meats and vegetables

D. Show where standardized recipes are located and lecture to explain uses

Day 10--II. A. Slide/tape

B. Slide/tape

C. Demonstration

D. Lecture

E. Lecture

SAMPLE---APPENDIX D

TEMPERATURES FOR FOOD SAFENESS

TABLEWARE AND UTENSIL SANITATION

Maximum temperature for mechanical rinse — 195°

Mechanical rinse at nozzle — 180°

Minimum rinse temperature at dish (mechanical or dip rinse) — 170°

Temperature for mechanical dishwashing — 150°

Water temperature for hand dishwashing — 130° / 120°

Temperature for scraping dishes — 110° / 100°

FOOD HANDLING AND STORAGE

(TEMPERATURE OF FOOD)

165° Food cooked to this temperature—most harmful bacteria killed

150° Minimum safe temperature of cooked food to kill bacteria

140° Store or display hot cooked foods above this temperature (after cooking)

Rapid Bacterial Growth

DANGER ZONE FOR FOOD SAFENESS

(Handling and Storage)

100° Normal Room Temp. 70°

45° / 34° Cold or chill food storage (slow bacterial growth)

0° / -5° / -10° Frozen food storage (not for freezing food)

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PRE-TEST/POST-TEST--APPENDIX E

Next to the question indicate if the statement is true or false.

_____1. Senior citizens should consume milk or milk products daily.

_____2. If a choking victim can cough, speak, and breathe do not interfere.

_____3. Cleaning agents should be mixed together for better cleaning.

_____4. A good setting for meals promotes conversation and reduces depression.

_____5. Storage areas need not have good ventilation.

_____6. The older person needs all the nutrients they did at age 25.

_____7. All food items should be rotated and used on a first in first out basis.

_____8. Use damp cloths, mitts, or pot holders for lifting a hot pan of food.

_____9. Proper hand washing will do nothing to prevent the spread of bacteria.

_____10. Senior citizens require less calories than someone of age 25.

Fill in the blank with the correct answer.

1. The information needed to tell what items are to be prepared, how much of each item, the amount of servings, and what method of preparation to use is given in the _____ _____.
2. Before cleaning slicers and choppers be sure to turn equipment off and _____.
3. Bacteria require _____, _____, and _____ in order to grow.
4. Employees should always _____ _____ between loading and unloading the dishwasher to prevent cross contamination.
5. Good personal hygiene is concerned with body _____.
6. Properly prepared vegetables will add _____ and variety to meals.
7. The danger zone at which bacteria grow best are between _____° F and _____° F.
8. Work simplification will allow for greater efficiency and save _____, _____, _____, and aggravation.
9. Too high of a cooking temperature will destroy _____.
10. Bacteria thrive on foods high in _____.
11. A method of cooking often used to prepare large roasts is dry-heat cooking or roasting. The proper temperature to use is _____° F.

12. When using a slicer never press food against the slicing blade with your _____.
13. When grilling hamburgers turn the meat _____.
14. For greater efficiency store items in the area or close to the area where they are _____.
15. Two agents used in sanitizing dishes in the dishwasher are _____ and _____.

Answer the questions in the space provided below.

1. List the four food groups.

   1.

   2.

   3.

   4.

2. List two good sources of protein.

   1.

   2.

3. Diet orders are prescribed by whom?

4. If you do not know if an item is allowed on a particular diet where can you find this information?

5. List two vegetables allowed on a bland diet.

   1.

   2.

6. List two foods which can be used on a full liquid diet.

   1.

   2.

7. List two foods which are high in fiber.

   1.

   2.

8. What does no added sugar and no concentrated sweets mean?

Criteria for Skills Check-list
Appendix F

1. Given the days menu, employees can identify what food group each item is in.

   When asked, employees can tell how many servings are needed daily from each food group.

   Employees can tell a nutritious snack from each food group.

2. When asked, employees can tell where a diet manuel is located.

   When asked about a particular food, employees can look in the diet manuel to see if allowed for a particular diet.

3. Employees can show where menus are located.

   Employees can locate menus for different diets.

   Employees can explain difference in a particular menu when compared with another menu.

4. Employee, when given a menu, can prepare a correct tray.

   Employee serves correct portions when given a menu.

5. Employee shows where standardized recipes are located.

   Employee can locate preparation schedule and tell how many servings are needed of a particular item.

   Employee can properly prepare a food using the standardized recipe.

6. Employee demonstrates proper cleaning of a fresh fruit or vegetable used on the menu.

Employee can tell what temperature fresh produce needs to be stored.

7. Employee, when asked, can tell how to prepare two different kinds of meat on the menus.

   Employee can locate standardized recipes for meat preparation.

   Employee can tell three methods used in meat preparation.

8. Employee can prepare tray when given a menu.

   Employee gives correct portions when given a menu.

   Employee arranges food properly on tray when filling a menu.

9. Employee puts clean dishes away so cross contamination does not happen.

   Employee collects dirty dishes so as to avoid cross contamination with food and clean dishes.

   Employee demonstrates proper handling of clean dishes.

10. Employee can locate cleaning supplies and cleaning schedule.

    Employee can locate procedures for cleaning equipment.

    Employee demonstrates knowledge of cleaning a piece of major equipment.

11. Employee properly scrapes dishes before loading for the dishwasher.

    Employee racks dishes properly so they will come out clean.

    Employee can properly fill detergent dispenser for dishwasher.

12. Employee demonstrates proper cleaning of stainless steel.
    Employee demonstrates proper cleaning of work area after food preparation.
    Employee can tell what cleaning supplies are needed to clean the oven.
13. Employee can show where thermometers are located in refrigerators and freezers and can tell the temperature.
    Employees can locate thermometers on ovens and can properly set it at a given temperature.
    When asked, employees can tell appropriate temperature for freezers and refrigerators.
14. Employee, when asked what he would do with a case of green beans, gives appropriate response in relation to storage.
    Employee can give reasons why not to store foods on the floor.
    Employee can demonstrate proper rotating of foods.
15. Employee can show where chart is located that tells what to do when someone is choking.
    Employee can tell what to do for a victim if he is still conscious, but cannot speak, cough, or breathe.
    Employee can tell what to do for the unconscious victim.
16. Employee can demonstrate the correct way to wash hands.
    Employee can tell some reasons why hand washing is so important.
    Employee can tell some important times when hands must be washed.

17. Employee can tell why between meal feedings are important for a particular client.

    Employee can tell procedure for preparing nourishments.

    Employee can tell the route used for delivering of nourishments to the client.

Training Program Evaluation
Appendix G

Please rate the following areas of the training program. Check the response which indicates your personal reactions and attitude toward the program.

1. The material covered in the training program held my interest.

   ____ very much

   ____ for the most part

   ____ only half the time

   ____ very little

   ____ not at all

2. The material covered in the program will be useful in my work.

   ____ very much

   ____ to a large extent

   ____ only half the time

   ____ very little

   ____ not at all

3. The handouts and the slide/tape presentations used were:

   ____ very good

   ____ good

   ____ average

   ____ below average

   ____ poor

4. The teacher helped to hold interest and was easily understood.

____ very much

____ for the most part

____ only half the time

____ very little

____ not at all

5. The training program was well planned and easy to follow.

____ very much

____ for the most part

____ only half the time

____ very little

____ not at all

6. Your overall evaluation of the program.

____ very good

____ good

____ average

____ below average

____ poor

DEPARTMENT OF NUTRITION AND FOOD SCIENCES
TEXAS WOMAN'S UNIVERSITY
P.O. BOX 24134
DENTON, TEXAS 76204

CURRICULUM AND ADMINISTRATION
(817) 382-5611

NUTRITION RESEARCH
(817) 387-5305

October 10, 1979

My name is Debbie Broyles and I have developed a training program for nursing homes and extended care facilities as part of my thesis. The training program was developed to meet State requirements. Upon sucessful completion of the program and the skills check-list required by the State of Texas, the foodservice employees will be certified to work in nursing homes. The training program will also provide much needed information to the foodservice worker in an overall effort to improve the quality of food and service for the client. The program is designed to be given over a period of two weeks and last from forty five minutes to one hour per day. I am enclosing a brief outline which illustrates the concepts which will be presented. This service, if you are interested, will be provided free.

If you would like to have the program presented to foodservice employees in your facility, please sign the three copies of the enclosed letter of agreement and indicate the number of foodservice employees who will be participating in the training program. Return two copies of the letter of agreement in the enclosed envelope by October 19 and retain one copy for your file. Thank you for your cooperation.

Sincerely,

Debbie Broyles

Appendix I

AN AGREEMENT BETWEEN
TEXAS WOMAN'S UNIVERSITY
DEPARTMENT OF NUTRITION AND FOOD SCIENCES
Denton, Texas
and

This is to certify that Debbie Broyles has been authorized to present a two week training program to foodservice employees as a part of her thesis. Two weeks following presentation she will rate foodservice employees utilizing the skills check-list required for certification by the State of Texas. She will be working under the supervision of Dr. Carol Shanklin of Texas Woman's University and the training coordinator for the nursing home. A consent form will be signed by each employee prior to training. The number of employees to attend are _____.

NURSING HOME

_____
Nursing Home Administrator

Date:_____

_____
Training Coordinator

Date:_____

TEXAS WOMAN'S UNIVERSITY

_____
Carol Shanklin, Assistant Professor

Date:_____

_____
Alice N. Milner, Ph. D., Chairman, Department of Nutrition & Food Sciences

Date:_____

_____
Betty B. Alford, Ph. D., Dean of College of Nutrition, Textiles, and Human Development

Date:_____

Appendix J

Consent Form
TEXAS WOMAN'S UNIVERSITY
HUMAN RESEARCH REVIEW COMMITTEE

Title of Project: The Development and Evaluation of a Training Program for Foodservice Employees in Nursing Homes and Extended Care Facilities

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time.

Signature _____ Date _____

Witness _____ Date _____

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

Signature _____ Date _____

Position _____

Witness _____ Date _____

Reference Sources for Training Program

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