

TWI methods of teaching auxiliary nursing personnel

BY OLIVE WHITE, R.N.

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KING County Harborview Hospital has instituted a training program for auxiliary workers to compensate in increasing measure for the decrease in its professional nursing staff. In 1943, this 500-bed hospital employed thirty-five helpers; in 1945 it employed 100; now it employs 125.

The director of nursing service realized that the care given by Red Cross nurse's aides was excellent because they were *carefully instructed in specific procedures*. Their work demonstrated to the public and to the nursing profession that the trained nonprofessional worker has a real place in ward service and in bedside nursing.

The auxiliary worker has rarely come to us with any hospital experience. She was formerly expected to learn "on the job," and she was paid while learning. But even the more experienced head nurses did not have time to teach. The turnover in ward helpers was staggering. Some left because they were not temperamentally fitted for the work; others because they felt helpless and useless; or they felt themselves ignored. They were "in the way"; they were not taught how to function usefully. The standard and quantity of work was unstable; the morale was low.

An instructing supervisor of auxiliary workers appeared to be necessary if efficiency were to be created. In January 1945, the hospital appointed a registered nurse to orient, instruct, and supervise these workers.

Planning the instruction

The new auxiliary workers are not a homogeneous group. They show greater variety in education, social background, and temperament than do student nurses. Because of this, classroom instruction and the academic approach is considered un-

desirable and impracticable, if not impossible. The instructor of ward helpers needs to be personally interested in them. The worker's "learning process," from the standpoint of the worker, must appear to be on a co-operative enterprise basis. The instructor should teach always with a "let me show you how" attitude. A demonstration by the instructor, a doing of the procedure together, a supervision of the worker's first and second performances; this is the technic of vocational training.

Facts and skills can be presented more effectively to the nonprofessional worker when instruction is used to give courage and confidence; in short, when it is sympathetic. The instructor should have a vision of the future possibilities of a vocational training program, and should be convinced of the high worthiness of integrating an auxiliary group into the nursing service. She must make certain that her instruction is in harmony with established hospital procedure. In hospitals with which schools of nursing are associated, she should attend the classes in nursing arts in order that her instruction never contradict the established nursing procedures of the school and hospital.

In a series of conferences attended by our director of nursing service, the director of the school of nursing and her staff, and all instructing supervisors and head nurses, the functions of auxiliary workers were defined and classified. Agreement was immediate upon one point: This training would be given upon an individual basis, limited in each case only by the capacity of the individual to grasp and to follow the instruction.

Eventually, the activities of nonprofessional workers were classified in four divisions. All new workers would be expected to grasp thoroughly the duties of the first

category and progress as ability permitted into the functions of Groups II, III, and IV. The classification follows:

1. *Housekeeping duties*
 - Clean sterilizers
 - Scour and boil enamelware
 - Scour and boil bedpans, urinals
 - Clean utility room, supply cupboards, linen-room, bathroom
 - Wash rubber sheets, tubing
 - Fill toilet paper and towel containers
 - Make newspaper supplies: waste bags, isolation squares
 - Wash beds, bedside stands, chairs, sills, sideboards, standards, cradles, et cetera
 - Tidy ward: flowers, ash trays, sputum cups, adjust blinds
2. *Transportation and communication*
 - Make lists of daily supplies needed
 - Get supplies from central supply, laboratory, pharmacy, linen-room, surgery
 - Take papers and records to proper offices
 - Assist with patient transfers
 - Transport patients to x-ray and therapy departments
3. *Patient care*
 - Pass wash water and mouthwash
 - Wash helpless patients (hands and faces)
 - Pass trays; feed helpless patients
 - Pass drinking water at routine hours
 - Pass bedpans and urinals routinely
 - Test urines for sugar
 - Check fluid intake and output
 - Dress and undress patients
 - Make out clothes lists on admission
 - Make up beds: closed, open, ether, et cetera
 - Give routine incontinent care
 - Give simple decubitus care
 - Give enemas
 - Take temperatures
 - Know isolation and gown technic
 - Give bed baths; tub baths
 - Give post-mortem care
4. *Clerical duties*
 - Chart morning and afternoon graphics
 - Chart stools
 - Keep adequate supply of charts assembled
 - Add new sheets to patient's charts as needed
 - Fill in headings on admission and on all additional sheets
 - Check charts upon discharge of patient
 - Take charts to information desk upon patient's discharge
 - Rule census book
 - Fill in admissions and discharges
 - Keep temperature book ruled, room and bed numbers filled in
 - Make out time slips for following day
 - Check yesterday's time slip for errors
 - Keep up "critical" and "unsatisfactory" lists
 - Keep up "stool" and "bath" lists
 - Make skeleton for daily ward report
 - Order: I.V. sets, repairs, linen
 - Check supply cupboards and note needs

- Make weekly supply requisition
- Put supplies away
- Keep desks and charting tables clean and tidy; supply with stationery
- Answer telephone and relay messages
- Collect money for newspapers
- Care for old requisition books on floors
- Pass mail, flowers, packages
- Fasten identification cards to beds
- Clean and check locked cupboard and one behind desk
- Assist with visitors

The technic of ward helper instruction is not that of the nursing arts laboratory and classroom. It is streamlined; it is instruction "on the job." In January 1945, Training Within Industry Service of the War Manpower Commission made available to our teaching supervisors and head nurses its course in job instruction. This did much to stabilize our program for ward helper training.

TWI achieved the instruction of a new worker on a job in four steps: The instructor must (1) prepare the worker; (2) present the operation; (3) try out performance, i.e., have the worker do the job, the instructor correcting errors; (4) follow up, i.e., "put the worker on his own."

Table 1

At the present time, our corps of one hundred auxiliary workers is distributed among these four types of duties as follows:

Housekeeping duties.....	20
Transportation and communication.....	20
Patient care.....	80
Clerical duties.....	5
Total.....	125

Table 2

Auxiliary workers giving *patient care* are distributed over the three "shifts" as follows:

7:00 A.M.-3:30 P.M. } OR 9:00 A.M.-5:30 P.M. }	}	42
OR		
10:00 A.M.-6:30 P.M. } 2:30 P.M.-11:00 P.M. }	}	18
OR		
11:00 P.M.-7:00 A.M.....	20
Total.....	80

Orientation

The first step is extremely important. In TWI parlance, "to prepare the worker"

means to put her at ease; to state the job and find out what she already knows about it; and to get her interested in learning the job. Since a ward helper ultimately may be taught some fifty jobs, we emphasize careful orientation when the worker is employed, thus minimizing or eliminating the effort "to prepare the worker" as each new job is approached.

The new worker is met at the nursing service office. This morning it is Betty B. who has been assigned to women's surgical ward. She is introduced to the instructor who sits down in a quiet, informal spot and talks to her.

"Have you ever worked in a hospital before, Betty?" she asks.

"No, I haven't," Betty replies.

"I noticed on your application that you have had some experience as a waitress. This will stand you in good stead, because you already know how to get along with people, and know the value of organizing your work. I will be at your side most of the time for the next day or two, and will work with you to help you learn your duties. At first, you will be doing mostly ward housekeeping. You will find this an

Table 3

This schedule indicates our effort to "stagger" work hours in order to avoid "split shifts."

Day Worker #1

- 7:00 A.M. Pass and collect wash water
- 7:45 Pass and collect breakfast trays
- 8:30 Supplies and requisitions
- 9:00 Scour and boil wash basins
- 9:30 Wash pitchers and drinking glasses. Pass drinking water.
- 10:30 Clean rooms and bed units
- 11:30 Tidy utility room
- 11:50 Pass lunch trays
- 12:20 P.M. Worker's lunch period
- 12:50 Pass bedpans
- 1:30 Cleaning:
Mon. and Thurs.—cupboards
Tues.—linen-room
Wed.—screens, et cetera
Fri.—cubicle windows
- 2:30 Pass drinking water
- 3:00 Tidy utility room
- 3:30 Off duty
- 3:45
- 4:15
- 5:00
- 5:30
- 6:00
- 6:30
- 7:10
- 7:30
- 8:30
- 10:15
- 11:00

Day Worker #2

- Errands and patient transportation
- ↓
- Help with ward cleaning
- Get pharmacy supplies
- Pass and collect lunch trays
- ↓
- Worker's lunch period
- Clean vacated units
- Make up beds
- Help with cleaning
- ↓
- Pass bedpans
- ↓
- Pass supper trays
- Off duty

Evening worker

- Lights, errands, cleaning
- ↓
- Pass wash water
- Pass and collect supper trays
- ↓
- Worker's dinner period
- Scour and boil wash basins
- Pass night blankets
- Serve nourishment
- Pass drinking water
- Pass bedpans
- Make patients comfortable
- Tidy utility room
- Off duty

As shown in Table 2, the night ward helpers work a straight shift from 11:00 P.M. to 7:00 A.M. During this time they assist the nurse in charge with patient care and are responsible for the routine night sterilizing.

interesting way to learn the ward and to become at home in it before you go on to other learning."

"What will I learn to do? Will it all be cleaning?" Betty may ask at this point.

"When you are quite familiar with all phases of ward housekeeping, you will be shown where other departments of the hospital are located, how to keep your ward supplied with daily requisitions, and, possibly, how to take a patient to x-ray. Later, if you show an aptitude, you may be taught how to give baths to bed patients, or how to take temperatures."

"Oh, will I have to take temperatures?" Betty is startled.

"Not at all, if you prefer not to learn. No worker need do anything beyond house-

keeping duties *if she does not feel capable*. However, *there are opportunities here for many types of learning if you are fitted for it*. Shall we go to the ward now? I want you to meet the ward supervisor and your head nurse."

Getting off the elevator, the orientation continues:

"In this hospital, except on the main floor, all corridors run north and south. When you turn right on leaving the elevator, you are going south. If you will remember this, you are not apt to lose your way. Your assignment will be women's surgical service, Fourth Floor South. This is the fourth floor. Now, which direction do we go?"

Betty turns toward the south ward.

After the introductions, the instructor and Betty make an unhurried tour of the floor. She is first shown where the restroom for the personnel is located; then the wards are visited, and the bed numbering is explained.

"The beds in each room number from left to right, so that this bed to your left, inside the door, is bed number one. The room number is 402. Now, this room across the hall is 405. Which is bed number one in this room?" Betty tells the instructor, who tests her repeatedly on bed numbering as they walk through the wards.

The linen-rooms, bathrooms, and utility rooms are examined. In one of the latter a lesson is given on the use of the bedpan hopper:

"This is the bedpan hopper. You will be asked to empty and wash bedpans, so I will show you how it is done. (The instructor takes a pan from the rack.)

"Hold the pan level with your right hand, like this (suiting the action to the word). Raise the hopper lid by pressing this lever with your foot. (The instructor points to the lever, then presses with foot.)

"With your left hand lift up on this black-handled lever (action). See how it opens the claws that will grasp the pan? Place the pan on the rack between the claws (action). Drop the lever, like this (action). Do you see that the claws close on the pan? They will hold it in position while the water is flushed through it. The water rushes from this pipe which opens upward (pointing).

"This lever (pointing) starts the water, but do not touch it until after you have closed the hopper lid. If you do, the water will spray out of the hopper. I now close the lid, and pull the lever. Hear the water?"

"The flow has stopped; I raise the lid (foot action on lever). Release the pan by lifting this black-handled lever (action). Now lift the pan from the rack and carry it to the sink (action). Here is the bottle brush; see, it is long-handled. And here is the jar of soap solution. Pour some solution into the pan and wash the pan with the long brush. Run the brush well up under the curved edge. (Suit action to words.) Now, watch me rinse the pan with hot water. The hot water not only cleanses the pan; it makes it dry more rapidly. Now, see where I put the pan away in the bedpan closet.

"Now, let me see you take a pan to the hopper, empty it, wash it, and put it away."

Betty goes through the process, but may forget to drop the bedpan rack. She

Table 4

Job Break-Down Sheet for Training Man on New Job

PART—EQUIPMENT: Thermometers, containers, cotton, bichloride, water. OPERATIONS: (1) Read thermometer; (2) Take temperatures; (3) Care of equipment.

<p>IMPORTANT STEPS IN THE OPERATION</p> <p>Step: A logical segment of the operation when something happens to ADVANCE the work</p>	<p>KEY POINTS</p> <p>Key point: Anything in a step that might Make or break the job Injure the worker Make the work easier to do, i.e., "knack," "trick," special timing, bit of special information</p>
<p>I. <i>Read thermometer:</i></p> <ol style="list-style-type: none"> 1. Explain thermometer 2. Check learning 3. Transfer learning 	<ol style="list-style-type: none"> 1. Markings, numbering, arrow (use model) 2. On model thermometer 3. To regular thermometer
<p>II. <i>Take temperatures:</i></p> <ol style="list-style-type: none"> 1. Thermometer from solution 2. Wipe dry 3. Place under tongue 4. Remove and read 5. Return to container for two minutes 6. Record in book 7. Repeat operation 	<ol style="list-style-type: none"> 1. Solution beyond patient's reach 1. Dry cotton 2. From bulb to fingers 1. Instruct patient to keep lips closed 2. Leave three minutes 1. Recheck high temperatures using another thermometer 1. Cotton moistened with water 2. Cleanse—finger end to bulb end 3. Shake down to 96° F. 1. Check ward, bed, name 2. Record temperature 1. Use thermometers in rotation
<p>III. <i>Care of equipment:</i></p> <ol style="list-style-type: none"> 1. Wash containers 2. Reset tray 	<ol style="list-style-type: none"> 1. Soap and water 2. Handle thermometers carefully 1. Bichloride to "collar" level in thermometer container 2. Cotton in bottom of container to protect thermometers 3. Fill water container 4. Fill cotton container 5. New paper "waste" cup 6. Pencil on tray

is reminded immediately of her error—one essential of job instruction being to correct errors the *first* time they are made. If this first performance has not been easy for the worker, she is asked to repeat it until the instructor is sure she understands.

In teaching the worker a new job, the instructor must remember that “telling her how” is not sufficient; “showing her” is not sufficient. Rarely does the worker achieve proper performance unless the instructor combines into the teaching process telling, showing, “return demonstration,” and correction.

A demonstration of hand washing, and a simple discourse on the value of cleanliness to both the patient and worker, follows logically at this point.

How much better is Betty’s preview in-

struction on washing bedpans than was Barbara’s instruction in “the old days” when she was expected to fit unaided into a highly-g geared ward program and to learn by the trial and error method! No one told Barbara that the top of her utility wagon was removable. Attempting to steer the vehicle, she lifted the top, unexpectedly dashing jars and bottles to the floor in a broken heap. How was she to know the top was not fastened to the chassis? Barbara tried to work through three agonizing days, and quit in tears. Betty gained confidence rapidly and by mid-morning wondered why she had ever been afraid of the thing she was going to try to do. Vocational instruction is successful when the instructor takes no knowledge on the part of the new worker for granted.

The instructor must anticipate all possible situations, and prepare the new worker to meet them, thus avoiding damage, injury, and embarrassment.

Procedure book and timetable

The instructing supervisor of auxiliary workers compiled a procedure book of all jobs to be taught ward helpers, using the TWI method of job analysis. The sheets from the procedure book are for the use of the instructor only. They are the instructor’s reminder to herself—her lesson plans. They are never given to the worker. TWI constantly warns against the inclusion of too much detail. Hence a lesson plan consists of “important steps” and “key points.” An example of such a “job breakdown” is shown in Table 4. The

Table 5

Timetable Ward helpers Ward 4 South Surgical service June	Housekeeping	Utility room	Drinking water	Care of pitchers, etc.	Requisitions—errands	Pass trays—feed	Pass wash water	Pass bed pans	Make empty beds	A.M. and P.M. patient care	Transport patient—stretcher	Transport patient—wheelchair	Incontinent care	Baths	Low enemas	Temperatures	Fluid intake	Fractionals	Simple decubitus	Isolation and gown technic	Care of the deceased	Graphic charting	Check closed charts	Make out supply orders	Midnight lines	Treatment-room (noc)	
	Alice A.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	/	x	/	/	/	/	Excellent. May join Waves in July.
Betty B.	/	/	/	/	x	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	x	x	x	x	Ward clerk.	
Carol C.	x	x	x	x	x	x	x	x	x	x	x	x	x	6/15	7/1	7/1	x	7/1	7/1	/	x	/	/	/	/	Could be developed to replace Alice. Dependable.	
Donna D.	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			/	x	/	/	/	/		Slight detail. Hold to present work.	
Enid E.	x	x	x	x	x	x	x	x	x	6/15	x	6/15	6/20		x		7/1	/	x	x	/	/	/	/		Dependable but learns slowly. Lacks confidence. Help her.	
Gladys G.	x	x	x	x	x	x	x	6/10	x	6/10	x	x		6/14	x	x			/	x						Learns quickly. Will be good worker. Thorough.	
Helen H.	x	x	x	x	x	x	x	x	x		x				o		o		/	o						Poor vision.	
Janet J.	x	x	x	/	/	/	/	x	x	/	/	/	x	/	x	x	x	x	x	/	x	x	/	x	x	Good leadership material. Evenings only.	

LEGEND

- X — Worker knows job.
- / — Learning not needed.
- 6/15 — Must know this job by this date.
- Has not been taught this job.
- O — Will not be taught.

breakdown, when interpreted to the worker, is augmented with the TWI technic of "tell, show, and illustrate."

The entire ward helper program is one of teaching "mechanics," rather than nursing arts. For this reason there may appear to be an overemphasis on key points relating to the mechanics of the procedure and little attention to the observation of the patient. The ward helpers work with convalescent patients and we believe they are "told" and "shown" enough to ensure safety to their patients.

In addition to the procedure book, the instructor keeps what TWI calls a "timetable." It contains a sheet for each ward showing the workers on duty, their qualifications, handicaps, and the procedures in which they are competent. This timetable reminds the instructor of the worker-need and the training-need on each ward. On it are recorded vacancies, dates of approaching vacations, leaves, and resignations. A review of the timetable shows the instructor, in TWI parlance, "What *worker* must be taught what *job* by what *date*" if the ward is to be taken care of efficiently.

A plan for supervision

The new worker remains under the personal supervision of the instructor until she has received adequate basic instruction to function in ward housekeeping. This may take two days; it may take a week. The instructor, at any point during this period may advise the nursing office to discontinue the employment of a worker with little aptitude or without proper attitude. The instructor turns the worker over to the head nurse with a memorandum of the "jobs" she is able to perform. The daily assignment of work to properly instructed ward helpers is a function of the head nurse. Head nurses hand memoranda to the instructor requesting review of demonstrations for slow or backsliding workers. The instructor recommends promotion from housekeeping duties to "transportation" and to "patient care."

The relation of the instructor of auxiliary workers to the supervisor or head nurse is quite analogous to that of a nursing arts instructor to these same persons. Just as the head nurse may instruct a student, so she may instruct a ward helper. But, just as she is usually thankful for a student well instructed by the nursing arts instructor, so is she appreciative of the value of a well-instructed auxiliary worker. And, just as the nursing arts instructor "follows up" the work of students in the hospital, so must the supervising instructor of auxiliary workers carefully watch the per-

formance of ward helpers. In no other way can she judge the merit of her instruction.

Results to date

The program of supervision of auxiliary workers has greatly improved morale in this group, developing in them a keen interest and sense of personal responsibility. It has accomplished standardization of work methods and a quality of performance that is proving its efficacy. Auxiliary workers now feel that they are a valued part of the nursing personnel. Better type women are applying for work and, because the turnover is less, the hospital is selecting personnel with ever greater care.

Orientation, instruction, and supervision of the nonprofessional women by a specified leader has lightened the load of responsibility of head nurses and has at the same time made possible release of staff nurses for more vital duties. But above all it means that, even in time of nurse shortage, patients are receiving good care.

What is the future of this program? In the April 1945 *Journal*, Edna S. Lepper speaks of "the demonstration of the worth of service given by nonprofessional or

auxiliary personnel" as one of lasting value which has resulted from our difficult experiences with nursing service in war time. We are in complete accord. Our corps of ward helpers is here to stay. The endless repetition of simple nursing procedures is of doubtful educational value to the student nurse preparing for a professional nursing career. And it is poor economy to take the time of women who have invested from three to five years in education and training above the high school level for the performance of elementary procedures which may be taught "on the job" to women of appropriate attitude and aptitude.

Our corps of workers for elementary patient care, now numbering 80 will be increased as promotions can be made. Without further expansion, the "split shift" cannot be completely eliminated nor our daily hours of nursing care per patient be increased to a highly acceptable standard. The continued success of the program depends upon continuity of instruction and supervision and upon increasing co-operation and understanding on the part of head nurses and graduates.

Bulletin boards

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IT IS OUR PURPOSE to show here by word and illustration what we have been able to accomplish at the Burbank Hospital School of Nursing through the application of principles published in previous issues of this *Journal*.^{1, 2, 3}

The educational bulletin is not a recent innovation in our school. Bulletin boards, located in the classrooms, corridors, and library, have been used in the past for posting illustrative material and current

¹ BURWELL, CORDELIA R.: Bulletin Boards in the School of Nursing, *Am. J. Nursing*, Vol. 44, pp. 1077-1079 (Nov.) 1944.

² DAVIS, HENRIETTA: Bulletin Boards in the Hospital, *Am. J. Nursing*, Vol. 37, pp. 723-724 (July) 1937.

³ STILSON, GLADYS M.: How To Have Good Bulletin Boards, *Am. J. Nursing*, Vol. 37, pp. 719-722 (July) 1937.

items, with the hope of supplementing lesson plans and enriching the learning process of the student. It was not until the fall of 1945, however, that we made a definite attempt at an organized, correlated presentation of material. A teaching project by the history of nursing class supplied the impetus, with a bulletin presentation, cleverly executed in white on a red background and entitled "The Cross—Its Diversified Forms and Meanings." The attention, interest, and favorable comment received left us with but one resolve: *planned, attractive, and effective bulletins in the future.* We had these subsequent exhibits photographed and the prints have been filed for future reference.

Our teaching bulletins are located in the