The Mental and Physical Health of Students of Nursing

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A YOUNG WOMAN who selects nursing as a career picks more than a profession; she chooses a way of life. As a nurse she will learn to think her way into patients' feelings. Her outlook will be one that combines professional requirements with deep regard for human values.

Her work will require her to develop the personal resources she will need to give comfort and help to the sick in their time of need. By constantly giving to others she will insure her personal growth as a human being.

If our nurses are to perform at their effective best someone must insure that they have the chance to enjoy good physical and mental health. Where they live, work, and spend their leisure hours has everything to do with their health. The Helene Fuld Health Foundation is a bright example of what can be done to provide these surroundings for nurses.

Good medical care can do much to decrease illness and time lost among student and graduate nurses. A thorough program contains four essentials: (*a*) readily available health services of high quality; (*b*) a healthful working environment; (*c*) work schedules that do not continually overtax physical and emotional resources; and (*d*) adequate housing and recreational facilities.

Health Services

The first health service a student of nursing benefits from is a thorough medical examination. It is a prerequisite to the physician's total planning for her and to her responsibility for her own health throughout her school life and later.

The young woman who applies for entrance to a school of nursing has outgrown the pediatrician but not the sensitivity to all childhood infections. She is subject to diseases such as mononucleosis, gastroenteritis, appendicitis, and acne. She may have experienced some of the gynecologic problems of young womanhood. She may possess the mixed-up drives, feelings, and the anxieties and exhilarations that characterize many of her age group (*1*). There will be few other times in her life when a careful, intelligent appraisal of her mental well-being by a sympathetic physician and a friendly conference with him will pay better dividends.

The initial history and physical examination offer a candidate for nursing school an opportunity to obtain professional help in evaluating her health practices. The advice she receives may one day help her avert or postpone the onset of clinical illness (*2*).

The medical examination should be thorough, but it should also be a pleasant educational experience. Carefully asked questions in taking the candidate's history can elicit hidden fears, aggressions, hostilities, and frustrations (*3*).

Some nursing schools ask that the candidate's family physician send a transcript of her health and family history to the examining physician of the school prior to the first examination (*4*). This saves the school physician

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Dr. Hilleboe, commissioner, New York State Department of Health, presented the first Helene Fuld Lecture at Trenton, N.J., May 26, 1960, under the auspices of the Helene Fuld Health Foundation, which has as one of its major interests the health of students of nursing.

from asking routine questions about family members, childhood diseases, and injuries. It is also useful to have the candidate fill out a health questionnaire before she appears for her examination. Either technique allows the physician to devote more time to health guidance during the candidate's initial visit.

Some nursing schools cannot provide their students with a full array of specialist services to augment those of the internist or general physician, although many schools do so by calling on community resources.

One school associated with a large general hospital follows an effective plan which begins with the applicant's family physician. With her application papers, each candidate is sent two forms to be filled out by her family physician. One is the Pre-entrance Medical Record recommended by the National League for Nursing; the other is an immunization form prepared by the school health committee. On the latter form, the physician records immunizations for smallpox, diphtheria, tetanus, typhoid fever, and poliomyelitis, and results of the Wassermann test. The school health adviser, who is a member of the admissions committee, reviews the completed forms and notes any irregularities that the applicant may present. He then suggests that minor difficulties be corrected before the candidate is admitted to the school.

During orientation week, the health adviser discusses with each student her responsibilities for maintaining good health. He explains the procedure for physical examinations, the importance of immunizations against communicable diseases, the facilities of the student health service, the school health insurance plan, and the value of good health habits.

A few weeks later the student of nursing undergoes a complete medical examination by the school physician. This includes a physical examination, a urinalysis, a hemoglobin test, a tuberculin test, a chest X-ray, and a dental examination. Her height, weight, blood pressure, temperature, pulse, and respiration are recorded and the record is placed on file in the school health service. The health adviser compiles the family and individual health histories. These records, together with laboratory reports, X-ray films, and results of other examinations, comprise the student's health record.

The school physician then reviews the results of her laboratory tests and medical reports with each student. He observes her posture and examines her feet. A podiatrist recommends proper types of shoes and checks these before they are worn. This is an important part of the examination and is too often overlooked in the health appraisal of persons who are on their feet most of their working day.

If further examinations are needed, the student is referred to the appropriate specialist.

Continuous Followup

What happens after the nursing student's initial medical examination is as important as what precedes it. Immunization booster schedules should be scrupulously followed. Any occurrence of diarrhea should lead to a search for enteric pathogens. The student should be queried about staphylococcal infections and asked to report any new infections promptly. This will help to avoid spreading an insidious invader through the newborn nursery and the surgery unit. The student should also be watched for allergic reactions, for she is being exposed for the first time to an enormous number of biological products, chemicals, new acquaintances, and new surroundings.

At annual examinations or in group discussions on health with the school physician or nurse instructor, it is desirable to teach students how to make self-examination of the breasts for early evidence of tumors. This examination should be made monthly throughout life. Later, in her professional career, the nurse can teach the procedure to her female patients.

At least once a year a history should be taken and a physical examination given each student. Several schools of nursing schedule three examinations for junior and senior students: one before they begin their clinical experience, another at the end of their junior year, and a final one at the end of their senior year.

Medical Care

Whenever possible, one person should have full responsibility for the general health service for students of nursing (*5*). Medical care should be readily available so that students will feel free to ask advice whenever they fall ill or notice symptoms of illness. Here a student

learns firsthand the full meaning of the physician-patient relationship and of the insights into health that this brings.

In some centers, there is a tendency to belittle nurses' complaints on the ground that psychosomatic ailments are common among students of medicine and nursing. Psychosomatic complaints, however, may be indications of severe emotional stress and, unless these are relieved by sympathetic medical counseling, and therapy when indicated, they can interfere seriously with the academic and clinical progress of a student, cause her needless mental anguish, and, in some cases, prompt her to use palliative forms of self-treatment that can be uselessly expensive or openly harmful. All complaints should be heard sympathetically and their ultimate significance understood by the student. Complaints may indicate illness for which diagnosis and treatment should not be delayed. Early diagnosis is as important for a student's own health as it is in the advice she gives to potential patients and their families.

To prevent the spread of disease, students who come down with "colds," minor respiratory ailments, and pyogenic infections should report to the health service physician promptly. Clinical and classroom instructors should see that students with colds and other infectious ailments are isolated and receive adequate medical attention (*6*). One or two days of bed rest for an acute cold will frequently save needless loss of time by avoiding complications. Rest in bed will also prevent infections from spreading to other students and to staff members and thus avoid further loss of time.

Sick Leave

If medical care is made easily available and no penalties are levied for time lost to illness, much can be done to encourage students of nursing to guard their health. Some hospitals enforce strict rules about absences from classes or from clinical practice, requiring students to make up time lost because of absenteeism. Rules of this sort are patently unsound because they make students unwilling to take time off to seek medical attention.

The school which allows a realistic amount of sick leave follows a wise policy and ultimately will reduce the amount of illness among its students and other personnel. Two weeks of sick leave a year is reasonable, and the time could well be cumulative throughout the school years.

Payment for Medical Care

The question of payment for medical care is important. If too heavy financial responsibility is placed upon students and their families, students in modest financial circumstances may avoid seeking care. Some schools provide free medical services through the staffs of the hospital with which the schools are associated. In other schools, group health insurance for students of nursing is common and a good practice for nurses to continue after graduation.

Counseling Services

It takes self-appraisal and self-discipline to acquire the warmth and serenity of the professional nurse who has had a balanced education of mind and body, but it can be done if students have the understanding help of teachers and medical advisers. There is no better time in life to attack mental and emotional problems than in the postadolescent years of the student. Early attention to emotional and social problems will help her build up a reservoir of mental stability, a working insight into the personalities of patients and co-workers, and an understanding-in-depth of her own drives and problems.

Included among the human relationships which students establish may be the all-important ones of marriage and motherhood. Sympathetic counseling has great value at such times of decision and adjustment.

For the overweight student whose obesity is a manifestation of a deep emotional problem, psychological counseling is the only course of treatment that is fair to both student and school and which has any chance of continuing success. Few things are more difficult for a heavy person to achieve than a permanent loss of weight, and no overweight student should be placed on a reducing diet until someone has tried to determine the cause of her obesity.

Students caring for tuberculosis patients in a tuberculosis hospital should have chest films taken 3 months before and from 6 weeks to 6 months after the planned experience. Students receiving BCG vaccine may require more fre-

quent chest films during periods on tuberculosis services because the tuberculin test usually becomes positive after vaccination and no longer serves as an indicator of fresh infection.

The health department suggests a tuberculin test for students who have undergone heavy exposure to tuberculosis and who have not had BCG vaccination. If the tuberculin test is negative, it should be repeated every 3 months for 18 months. If the test converts from negative to positive, a chest X-ray should be taken and repeated every 3 to 6 months for 18 to 24 months. Many experts advise giving converters prophylactic doses of antituberculosis drugs for 1 year. This decision can best be made by a consulting chest specialist.

Known tuberculin reactors who are exposed to active tuberculosis should have chest X-rays within 4 to 6 weeks following exposure and every 3 to 6 months thereafter. The length of followup should be based upon the advice of the supervising physician.

The New York State Department of Health also recommends that the chest health status of each student be evaluated upon graduation and that she be given a systematic protection plan to follow during her professional years.

Protection Against Tuberculosis

Most hospitals in which students of nursing obtain clinical experience take routine chest X-rays of all patients on admission, so there is little likelihood that any student will be unknowingly exposed to tuberculosis. However, in those hospitals which do not take chest films of all new patients and in hospitals with tuberculosis services, students with negative tuberculin reactions should be considered candidates for BCG vaccination.

Students feel that the practice of taking chest X-rays at the beginning and end of each hospital affiliation is unnecessary and undesirable. Exchange of X-ray films among hospitals and judicious use of tuberculin tests would give the hospital and the students the protection they need and would keep the number of chest X-rays at a minimum.

The New York State Department of Health recommends the following procedures for the protection of students of nursing against tuberculosis:

- An initial chest X-ray film of each student on admission to the school of nursing and one every 12 months thereafter.
- Tuberculin tests of nonreactors to tuberculin at regular intervals between X-ray examinations.
- A cooperative arrangement whereby hospitals with which nurses affiliate will accept either a chest film or its reading.

Protection Against Radiation Hazards

In many hospitals, exposure to any form of ionizing radiation is a real hazard for nurses, and it will increase in importance in this age of new X-ray techniques, use of radioactive isotopes in diagnosis, and use of intensive radiotherapy. Nurses who accompany patients for fluoroscopic and X-ray examinations are exposed to definite hazards. For example, it is common practice for nurses to hold infants during X-ray examinations. When this is unavoidable, the nurse should have the same lead shielding as the radiologist.

In the department of radiology at Johns Hopkins Hospital in Baltimore, nurses are not allowed in the radiation therapy rooms, and only under rare circumstances are they permitted in the diagnostic rooms (personal communication from Dr. Russell H. Morgan). When they must be present for a diagnostic procedure, they wear the kind of lead aprons and gloves worn by fluoroscopists. Special care is taken that they do not expose themselves to the direct beam of the X-ray tube. A technician from the radiation safety office computes the safe distance from each patient who is given isotopes or radium, and nurses maintain a position beyond this distance and keep direct contacts with the patient to a minimum. In general, pregnant nurses are not assigned for experience on floors where radioisotopes are in use. This protects both the mother and the highly radiosensitive tissues of the fetus, especially during the early months of pregnancy.

Environment for Healthful Living

Healthful living, in its deepest sense, calls for harmony of physical, intellectual, and emotional resources. Therefore, living quarters, social and recreational programs, vacations, the environment and scheduling of learning and

work, some of which spell creative leisure, are of the utmost importance to students of nursing.

Living Quarters

Some students in schools of nursing live at home, some live in other quarters of their choice, and some in dormitories with students in other schools. Most students live in residences provided by the school. Students' residences separate from the hospital are desirable. They should provide for the health and safety of each occupant and should offer wholesome living quarters and study rooms. A fire-resistant structure is the best protection against fire. An adequate number of exits and accessible firefighting equipment are a necessity, as is knowledge of each occupant's role in case of fire.

A single sleeping room for each student is desirable, and for students assigned to evening and night experience, a single room is imperative. Double rooms should have ample closet space and a set of basic furnishings for each occupant—bed, dresser, desk, reading light, desk chair, bookcase, and comfortable chair. Lighting should be tested by modern methods and students should learn its relation to sight conservation. For the comfort of the second occupant, lights should be adequately shielded.

In dormitories, bath and toilet units should be in a ratio of one unit to not more than six, and preferably four, persons. A dressing booth should be located outside each shower. Handwashing bowls in each bedroom are desirable. If they are not provided, the ratio in the central unit should be one bowl for every three persons. Every central toilet room should have a handwashing bowl even though there is one in each student's bedroom. Space and equipment should be provided for laundering personal things, for sewing, and for cleaning garments.

An informal lounge area with an adjoining kitchen and dinette is desirable for each floor of the students' quarters. Some arrangements should be made for recreation, depending of course upon the size of the residence. Reception rooms for guests, both men and women, are highly important, and coat rooms and lavatories should be provided for guests. The residence should be attractive and friendly in atmosphere. Color and decoration should be pleasing. Home is for rest, study, creative leisure, quiet thought, companionship, and fun.

Social and Recreational Programs

The nursing profession makes greater physical and emotional demands on women than almost any other calling. For this reason, an organized program of social and recreational activities is imperative. If a student is to learn to perform at her peak, she must have leisure activities that provide relaxation, physical exercise, and a change in the faces around her.

Although a young woman should be able to plan for most of her own time, the school has responsibility for organizing basic social activities. Well-planned activities sponsored by the school can be a satisfying focus of social life for students of nursing. Such activities not only refresh and relax, but give a new perspective to a young woman who may be away from home for the first time.

Dividends accrue to the school and to the hospital in which the student practices nursing when the social program seems to say to students, "You belong here and we're glad to help you round off the sharp edges of life into something more pleasant." Such a program gives the young student the feeling of well-being that accompanies a sense of belonging. A feeling that she belongs to something worthwhile is a source of inner strength to her in times of new experience and of crisis which come often for nurses. Loyalty to a school and a hospital, and appreciation of its solicitude, can be a blessing to students and can return continuing benefits to both.

Exercise and Nutrition

Sports and other physical activities should be encouraged the year around. Some provision can always be made for both outdoor and indoor exercises (*7*). Outdoor tennis courts, indoor swimming pools, and gymnasiums are standard equipment at some nursing schools. If the school does not have these facilities, arrangements for their use can oftentimes be made elsewhere in the community.

One school has adapted a course of the university's department of physical education to the needs of student nurses (*8*). The purpose

of the course is to develop the motor skills of students, to prevent physical strain, and to help them conserve time and energy in their personal and professional activities.

The course consists largely of practical application of the general principles of body control. Through discussion and practice, students learn to apply the physical laws of movement to everyday activities and to movements used in nursing and in sports.

The course teaches students how to relax, how to improve their coordination, and how to minimize fatigue-producing tension. Under the guidance of a discussion leader, they work out for themselves the most effective methods of stooping, bending, lifting, pulling, and pushing, and discover the reasons the methods are effective.

The food served both student and graduate nurses should not only be appetizing, wholesome, and sufficient in quantity, but it should be prepared attractively and served in pleasant surroundings. Too often the hospital dining room is a noisy, bustling place where the students and staff eat drab, unimaginative food to the cacophony of clanking dishes, the blare of the public address system, inevitable shop talk, and hospital odors. Under these circumstances, it is small wonder that many students bolt their food or eat at a lunch counter around the corner.

Quiet attractiveness should accompany all meals and opportunities for greater attention to the amenities of dining, interesting conversation, relaxation, and change should accompany special meals which are scheduled frequently.

Environment of Clinical Experience

The environment of students of nursing during their periods of clinical experience is more important than most people realize. Factors such as inadequate physical facilities, improperly functioning equipment, lax methods of housekeeping, sanitation, and asepsis, and chronic shortages of hospital supplies and personnel bear cogently upon the health of students who are learning and practicing the care of patients (*9*). Accidents due to faulty equipment and poorly planned facilities cause serious loss of time and result in needless disabilities among personnel.

The general sanitation of a hospital affects not only the health of students and of employees, but the effectiveness of its teaching programs as well. If the hospital staff does not practice what its nursing instructors preach, the hospital can hardly expect its students to acquire good nursing habits. It will do a nursing instructor little good to preach use of handwashing techniques in the classroom if staff nurses habitually fail to practice them in the nursery or if facilities are not available.

Staphylococcal infection rates among hospital patients are good indexes of breaks in sterile techniques as well as in soap-and-water cleanliness. Reports of a series of outbreaks in the United States and abroad indicate that in many hospitals staphylococcal infection rates approach 15 percent. However, some hospitals have been able to lower their infection rates to as low as 1 percent. Understaffing makes breaches in aseptic technique easy and also encourages nurses to ignore their own small infections.

Daily and Weekly Schedules

There are wide differences among schools in their educational philosophy and planning. Some plan tight and full schedules of instruction and clinical experience. In some of these schools, there is heavy concentration of science courses in the first term, long hours of clinical practice, and frequent assignments to night and evening experience throughout the program. Time schedules are rigidly adhered to. Comment on the quality of such education is inappropriate here, but the demands it makes on health and the lack of opportunities it affords for personal development are appropriate considerations for those concerned with the emotional and physical health of students and for regulation of schedules in relation to health throughout the program.

Other schools balance and interrelate science and clinical learnings, eliminate unnecessary repetition in practice and, through dynamic teaching, elicit high motivation for learning and self-direction from the students. Schedules are flexible. The health programs in such schools have high potential value for the students' learning, as well as for their health.

In some schools, students are permitted to work in hospitals or elsewhere in order to earn needed money. These students should have special health surveillance.

Some schools operate on the basis of academic years with vacations during summer, at major holidays, and between terms. Other schools adhere to hospital schedules for holidays and weekends. An annual vacation of at least one month is recommended for these schools.

Summary

A dynamic health program provides services in keeping with the best medical practices in diagnosis, therapy, prevention, and the achievement of positive physical and mental health. These services are provided in such a way as to encourage students to use them freely, naturally, and as part of their education for a health profession. The program is concerned also with the health elements of the environment of study, clinical experiences, daily living, and recreation. These elements can be molded to guide students into professional and personal enrichment.

A dynamic health program for students of nursing benefits the many people nurses care for throughout their lifetimes. It enhances the attractions of nursing as a profession. It moves youth toward self-fulfillment and enriches their gifts to humankind.

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Resources for Environmental Health

An Office of Resource Development (Environmental Health) has been established in the Bureau of State Services, Public Health Service. It will be the Bureau's central office for study and development of resources in the field of environmental health, particularly in air and water pollution, radiological health, occupational health, and environmental engineering and food protection. The office will coordinate the work of the various divisions of the Bureau in administering research grants, fellowships, and training programs and in developing research facilities. Studies of manpower in environmental health will also be conducted by the office. Frank A. Butrico has been selected to head the office.

A branch to administer grants for training or research has been established in the following divisions of the Bureau of State Services: Air Pollution, Environmental Engineering and Food Protection, Occupational Health, Radiological Health, and Water Supply and Pollution Control.

Toledo's Well-Oldster Conference

A report of the first year of the Well-Oldster Conference in Toledo, Ohio, has been prepared by Dr. Hilbert Mark, Dr. C. J. A. Paule, Hazel Deuble, and Helen Day, all of the Toledo City Health Department. The conference, started in March 1959, is a 5-year project developed by the health department in collaboration with the Academy of Medicine of Toledo and Lucas County.

The basic purpose is to develop a standard medical approach in evaluating the health of presumably healthy older persons. This entailed development of a history form; testing selected screening techniques as practical methods of casefinding among the aged; determining the normal ranges in laboratory tests for older persons; demonstrating the value of periodic health appraisals for the aged; finding ways to motivate older persons to seek regular examinations; developing an effective pattern of referrals from the appraising staff to private physicians, dentists, and clinics; establishing the optimum period between appraisals; determining the effectiveness of the cooperation that can be achieved between the health department, medical society, and individual practitioners and clinics.

The 119 "well-oldsters" initially admitted were recruited through the cooperation of senior citizens clubs and newspaper, television, and radio announcements. Some were referred by private physicians and clinics.

To enroll in the program, the only requirements are that the person be aged 65 years or over and presumably in good health. After registration, enrollees are given appointments for their first health appraisal and orientation to the program.

The appraisal requires three visits to the clinic. It comprises analysis of the blood for serologic reactions, cholesterol level, glucose, and urea nitrogen; a complete blood count; the Diagnex Blue test for gastroenteric morbidity; urinalysis; chest X-ray; electrocardiogram; vision testing with the Snellen chart; hearing tests; oral and dental inspection; and a complete physical examination including tonometry, sigmoidoscopic examination, and exfoliative cytology. In addition, the patient fills out a Cornell Medical Index (a health questionnaire) and a 3-day dietary intake form; has an interview with a social worker who records information about the patient's personal history, personality, and motivation; and gives his medical history to a public health nurse.

Because the staff found that the Cornell Index and the interviews that were originally relied upon to assess personality were unsatisfactory for research and for tabulation purposes, the 16 Personality Factor Questionnaire, devised by Dr. Eugene Byrd of the University of Miami, was adopted.

Some of the observations made of the medical and laboratory procedures used during the first year were: tonometry revealed several instances of increased intraocular pressure; a more effective enema than soap suds or plain water is needed for proper evacuation before sigmoidoscopic examination for this group (two other types of enema are being tried); serologic tests for syphilis produced only a few positives, of low titer; and exfoliative cytologic examinations showed normal estrogenic levels for most of those examined.

All persons found through appraisals to have conditions requiring medical care were discharged from the conference and referred to a private physician or clinic. Of the 119 persons enrolled, 34 were discharged for medical reasons and 6 for various nonmedical reasons. Hypertension (nine cases) and diabetes (seven cases) were the most frequent causes of medical discharges. As patients are dropped from the conference, new ones are admitted from a waiting list.

Those retained receive their second health appraisals 6 months after their first. Between appraisals, they attend a series of seven classes on nutrition, recreation, general and mental hygiene, dental health, care of the feet, and home safety.

During the first year of operation, 42 of 85 persons retained from the first appraisal had been in the project long enough to receive a second one. Of these, eight failed to report for their appointments. Of the 34 who did report, 5 were discharged for medical reasons.

Subsequent appraisals will continue to be held at 6-month intervals. As with the first appraisals, the findings of the subsequent ones are reviewed and recorded on McBee cards. The conference staff will publish a progress report after 3 years.