

SOURCES OF STRESS IN UNIVERSITY NURSING STUDENTS

by
ELSIE MacMASTER
Assistant Professor
Faculty of Nursing
University of Western Ontario

"It's a bad time of year for the students. This happens all the time." Too often, statements like these are offered in explanation of particularly stressful periods in the lives of university nursing students. Such statements are inadequate to justify stress that interferes with optimal functioning or to absolve faculty members of responsibility to minimize undue stress. A belief that at least some of the stress in the lives of students could be reduced prompted a study of the sources of stress in a particular baccalaureate nursing program.

PROBLEM

Stress is an unusual phenomenon. A certain amount of stress is critical to motivate students to learn, while stress beyond the optimal level can lead to failure, unhappiness, and economic loss (Rothrock, 1974). One of the tasks of educators is to manipulate the environment so that stress is kept to a level that will promote development of the student.

The effects of stress upon a university nursing student can be diverse. In the academic setting, stress can interfere with the learning of concepts and with their retention and recall (Meyers and Martin, 1974). In the clinical setting, stress can impair the performance of a student nurse as she/he struggles with multiple tasks: as a learner trying to apply knowledge, as a person in a strange environment, and as an aspirant to membership on the health care team (Dye, 1974.)

Stress can cause unhappiness and retard the personal development of a student. University students can be considered generally to be in the late adolescent period of life. In order to make the transition into adulthood, they must establish an identity — in a peer group, in a sex role, in an occupation, and with an ideology (Sheehy, 1976). Enrollment in a university program often means that the student must leave the security and dependence of an established position in a family, peer group, high school, and community and enter a strange, new environment. Coping with university life and establishing an identity are formidable tasks to be accomplished concurrently.

Faculty members can help the university nursing student to develop as a person and as a professional by control of stress. If the sources of stress can be identified, undue stress can be eliminated. The resulting environment would provide the level of stress that is both manageable and challenging to students.

RELATED STUDIES

A classic study was carried out by Fox and his associates (1965) as they gathered information about stress and satisfaction perceived by student nurses in diploma and collegiate programs and by female students in other university programs. The investigators wished to identify the types of stress peculiar to nursing education, who reacted to them and how, and how stress could be reduced.

Their findings revealed that the stressful and satisfying aspects of academic, social and personal life were common to all female adolescents attending a post-secondary educational institution. The stress involved coping with difficult courses, not knowing how to study, taking examinations, doing poorly in classwork, relationships with boyfriends and families, and problems of personal development. The clinical area was specific to the nursing students and, from this source, they experienced stress related to entering a new unit or experience, to problems with procedures, to clinical evaluation, and to the responsibilities involved in work assignments.

A Canadian study undertaken recently by Elfert (1976) at the University of British Columbia is patterned after the Fox study but is longitudinal rather than cross-sectional: the first class to enter the newly-revised nursing program is being followed. To date, the reported findings involve the first two years of the program. At first, students experienced stress from the adjustment to university life, family, friends, evaluation, and grades in courses. Later in the program, students experienced the greatest stress from practice in the clinical area.

An American study by Garrett, Manuel and Vincent (1976) focused only on the stressful experiences of students in a collegiate nursing program. Overall, clinical practice concerns were mentioned most frequently, but were outnumbered by academic concerns in the senior class. The single largest category of responses for all classes comprised the academic pressures related to examinations, assignments and homework.

In these studies, there was a large degree of consistency. A major source of stress for all nursing students at one time or another was clinical experience. For all groups of university students, the setting

created adjustment and academic pressures. The findings suggest that there is a body of stresses to which university nursing students are exposed.

Whether or not these investigators were successful in initiating actions to reduce stress is not recorded, but they all had such a goal and made recommendations for its achievement.

PURPOSE OF THE STUDY

The purpose of the study described in this paper was to identify the sources of stress in students in a baccalaureate nursing program and to develop profiles of concerns for each class in order that faculty members may develop ways to reduce excessive stress.

METHODOLOGY

For the purposes of the study, stress was defined in terms of Selye's description of distress: that is, "damaging or unpleasant stress" (Selye, 1974, p. 18). The setting was the Basic Degree Program in Nursing at the University of Western Ontario. At the time of the first data collection in Term 1, there were a total of 216 students enrolled in the program. Of this number, 170 (79%) participated in the study. By Term 2, the enrollment had dropped to 214 students of whom 158 (74%) participated in the data collection.

The students were given both a written and verbal description of the proposed study with specific explanation of the plans for use and disposal of the data. The students were asked to complete a form that was a modification of the critical incident technique developed by Flanagan (1954). The participants were presented with possible behavioral manifestations of stress and were asked to recall and report incidents from the previous term that they had perceived as stressful. They could report from one to three incidents and were cautioned not to identify themselves or any of the individuals or agencies involved in these incidents. Students indicated their willingness to participate in the study by completing the questionnaire.

Data were collected twice during the school year at the end of the first and second term. Both terms were followed by an examination period and the second term was followed by a synthesis clinical experience. All four classes were approached separately during class time or at the end of a nursing class period. In Term 1, 441 incidents were collected and in Term 2, 346.

The responses were analyzed and categorized independently by the investigator and the project advisor. Three major categories emerged: academic, clinical, and social-personal areas of student life. Profiles

of the sources of stress for each class during each of the two terms were developed and studied for differences among the classes at different times in the school year.

LIMITATIONS

Certain limitations were recognized. The profile of each class was incomplete because the sources of satisfaction were not surveyed. The classes were not followed beyond the two school terms described. As students were asked to *recall* stressful incidents, memory may have distorted their perceptions. Data were not collected from other university students or from nursing faculty members so the subjectivity may decrease the validity of the findings. Time and circumstances forced a limited study.

FINDINGS

The profiles of the sources of stress are illustrated in Tables 1 and 2.

Year 1 In Term 1, the academic area was the greatest source of stress. Students were particularly concerned with examinations and, to a lesser degree, with specific assignments and the workload. They were apprehensive about their first set of university examinations because they did not know what to expect or how the teachers would grade the papers. They were overwhelmed by the amount of material to be studied in a limited time. Some found it difficult to concentrate on studies because they were anxious to go home for Christmas holidays. They had difficulty with their first nursing essay because the assignment represented a new experience. Students had written few essays in high school, had not written an essay for a long time, had never written such a long essay, and did not understand the parameters of plagiarism against which they had been cautioned upon penalty of failure. Their concerns about the workload arose from the simultaneous deadlines for examinations and assignments.

Their social-personal concerns involved mainly the adjustment to university life. They described leaving home and the feelings of anxiety upon the perceived enormity of the university, the need to meet new friends, and the difficulty in getting established with a roommate in residence. Their clinical concerns were minimal, as expected in view of their limited clinical experience. Most of the expressed concerns related to the apprehension about the first experience with patients in a hospital.

By Term 2, the Year 1 class perceived the greatest stress related to examinations and the fear of dismissal from the program. Concerns about examinations were the same as in Term 1 and some students

Table 1: Sources of Stress in Term 1

| Sources of Stress | Frequency of Mention by % | | | |
|--|------------------------------|------------------|------------------|------------------|
| | Year 1 N = 56 | Year 2 N = 41 | Year 3 N = 41 | Year 4 N = 32 |
| Academic | | | | |
| Assignments | 10.7 | 0.9 | - | - |
| Course | 2.7 | - | 1.0 | 11.4 |
| Dismissal from program | 2.7 | - | - | - |
| Evaluation | 2.0 | 1.9 | 4.0 | 1.1 |
| Examinations | 29.5 | 15.3 | 14.2 | - |
| Faculty | 2.0 | - | 2.0 | 43.2 |
| Interpersonal relationships | - | - | - | - |
| Program | - | 0.9 | - | 8.0 |
| Studying | - | - | 1.0 | - |
| Workload | 7.4 | 14.3 | 14.2 | 3.4 |
| Clinical | | | | |
| Conflicting philosophies of patient care | - | - | - | 1.1 |
| Evaluation | - | - | 6.1 | 4.5 |
| Faculty | - | 2.9 | 14.2 | 1.1 |
| Initial experiences | 6.0 | 27.7 | 7.1 | 2.3 |
| Interpersonal relationships | - | 1.9 | 1.0 | - |
| Nursing procedures | 0.7 | 0.9 | 6.1 | - |
| Patient assignment | 1.3 | 10.5 | 2.0 | - |
| Personal competence | - | 1.9 | 2.0 | 2.3 |
| Relationships with patients and families | - | - | - | 1.1 |
| Workload | - | 1.9 | - | - |
| Written assignment | - | 6.7 | - | - |
| Other | - | - | - | - |
| Social-Personal | | | | |
| Conflict of personal and program demands | 1.3 | - | 3.0 | 2.3 |
| Extracurricular activities | - | 0.9 | 1.0 | - |
| Family | 6.0 | 2.9 | 1.0 | 4.5 |
| Family and friends | - | - | - | 1.1 |
| Friends | 6.0 | 7.6 | 10.1 | 8.0 |
| Future plans | 0.7 | - | - | 1.1 |
| Personal adjustment | 14.1 | - | - | - |
| Personal problems | 6.7 | 0.9 | 4.0 | 3.4 |
| Summer employment | - | - | - | - |
| Miscellaneous | - | - | 1.0 | - |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 |

Table 2: Sources of Stress in Term 2

| Sources of Stress | Frequency of Mention by % | | | |
|--|------------------------------|------------------|------------------|------------------|
| | Year 1 N = 67 | Year 2 N = 34 | Year 3 N = 28 | Year 4 N = 29 |
| Academic | | | | |
| Assignments | 4.6 | 9.3 | 3.5 | 13.1 |
| Course | 2.6 | - | - | 1.6 |
| Dismissal from program | 10.5 | 2.7 | - | - |
| Evaluation | 4.6 | 2.7 | 1.7 | 4.9 |
| Examinations | 22.4 | 10.7 | 1.7 | - |
| Faculty | 0.7 | 1.3 | 3.5 | 4.9 |
| Interpersonal relationships | - | 1.3 | - | - |
| Program | - | 1.3 | - | 3.3 |
| Studying | - | - | - | - |
| Workload | 7.9 | 17.4 | 17.2 | 8.2 |
| Clinical | | | | |
| Conflicting philosophies of patient care | - | 1.3 | - | 1.6 |
| Evaluation | 2.0 | 2.7 | 6.9 | 3.3 |
| Faculty | 3.3 | 1.3 | 19.0 | - |
| Initial experience | 1.3 | 4.0 | 3.5 | 3.3 |
| Interpersonal relationships | - | 1.3 | - | - |
| Nursing procedures | 3.9 | 1.3 | 1.7 | - |
| Patient assignment | 2.0 | 12.0 | 6.9 | 1.6 |
| Personal competence | 0.7 | - | - | - |
| Relationships with patients and families | 1.3 | - | - | 3.3 |
| Workload | - | - | - | - |
| Written assignment | - | 8.0 | - | - |
| Other | 0.7 | - | 1.7 | - |
| Social-Personal | | | | |
| Conflict of personal and program demands | 1.3 | 1.3 | 1.7 | - |
| Extracurricular activities | 1.3 | - | 1.7 | 9.9 |
| Family | 4.6 | 1.3 | 6.9 | 6.6 |
| Family and friends | - | - | - | - |
| Friends | 13.8 | 5.4 | 5.2 | 11.5 |
| Future plans | - | 1.3 | - | 16.4 |
| Personal adjustment | 2.6 | - | 1.7 | 1.6 |
| Personal problems | 6.6 | 9.4 | 8.6 | 4.9 |
| Summer employment | 0.7 | 2.7 | 6.9 | - |
| Miscellaneous | 0.7 | - | - | - |
| Totals | 100.0 | 100.0 | 100.0 | 100.0 |

related possible failure to the final examinations to potential dismissal from school. Their social-personal concerns focused on relationships with friends, especially boyfriends. Again the clinical area accounted for a minimal amount of stress.

Year 2 In Term 1, the Year 2 class perceived the clinical area as the source of greatest stress. Students were required to visit and care for prenatal families in the community and to care for patients in the "labour and delivery" and "maternal and newborn" areas of an obstetrical unit in hospital. The most frequently mentioned concern arose from their initial experiences in these areas. They were not sure how helpful they could be in the community and were apprehensive about meeting the families. The hospital caused anxiety because the students were not familiar with the setting, the ward routine, or the experience of labour, delivery and care of newborn infants. As well, many experienced stress in patient assignments to prenatal mothers whom they were to accompany during labour and delivery. Some students were called back from Christmas holidays or weekends at home and some were intercepted upon entrance to examination sessions to meet their patients in hospital. Conflicting demands caused great stress.

Students had academic concerns related particularly to examinations and workload. Their concerns focused on the number of examinations they had to write within one week and the difficulties in organization of their time to complete adequate studies. The workload created a problem because of the number of assignments and projects due at the same time. Their main social-personal concerns involved friends, and focused mainly on strained relationships with boyfriends and roommates.

In Term 2, the emphasis changed to the academic area. The major concerns were related to workload, examinations and assignments. The only change in the nature of the reports related to examinations. The students had found one biochemistry examination particularly stressful because the professor unexpectedly changed the format and the content to be examined.

The prenatal patient assignment continued to cause stress in Term 2. Social-personal sources of stress involved problems with friends and personal problems most of which related to illness of the students or problems with living accommodation.

Year 3 In Term 1, the Year 3 class reported an almost equal number of concerns in the academic and clinical areas. Their academic concerns centred on examinations and the workload. Their comments about examinations emphasized the scheduling of two

examinations on the same day and particular concerns about the volume of information tested on the pharmacology examination and the "ambiguous" and "unrepresentative" nature of the nursing examination. Their major concern was with the workload as they reviewed their heavy schedule of classes, clinical practice and assignments. This concern seemed well-founded in view of their schedule of six mandatory courses and two full days per week in the clinical area.

The main clinical concern for this class related to faculty. Many students perceived some of teachers to be "threatening" and "unhelpful" in the clinical area. Other students reported stress related to their initial experiences on medical, surgical and pediatric units and to their difficulties or errors with nursing procedures.

The social-personal area was of least concern. Problems arose primarily from relationships with family and friends. Essentially, the complaint was that their work schedule was so heavy that they had no time to pursue other interests.

The clinical area took precedence in Term 2. Again, the most frequently mentioned incident related to faculty and the damaging effects of teacher behavior upon their clinical performance. As well, they still had many concerns about the workload because their schedule involved seventeen written assignments in Term 2.

Year 4 Most concerns, by far, in the Year 4 class in Term 1 arose from relationships with faculty in the academic area, some having a perception of teachers as "hostile," "threatening" and "insensitive." Students were concerned to a lesser degree about their nursing course which they described as "disorganized," "boring," and "repetitive."

The major social-personal area of concern involved relationships with friends, especially boyfriends. Mention of clinical concerns was minimal.

In Term 2, the social-personal area provided the most stressful incidents. The major areas of concern were future plans, as the students attempted to find employment in a job-scarce world, and friends, especially their relationships with girlfriends this time.

In the academic area, they had some concerns about assignments and workload. There were varied problems with assignments from feelings of anger at the irrelevance of some assignments to the difficulty and relief of completing the last essay of their university career. Their clinical concerns again were minimal.

CONCLUSIONS

In general, the profiles of the sources of stress were what might have been expected for university nursing students. The major concerns were in the academic and clinical areas. Their main concerns were in keeping with their phase of life, their place in the program and time of the year of each class.

The Year 1 class exhibited the concerns of students new to the university environment. They had some problems in adjustment to school and they had academic adjustments to make as well. There was instability and insecurity in their academic abilities, such that they feared failure, and in their still-developing relationships with peers.

It was in the Years 2 and 3 that the students felt the impact of a heavy academic workload and of entry into new and important areas of clinical practice. The Year 3 clinical concerns were of particular interest because they focused mainly on teacher behaviors. These behaviors undermined the students' self-confidence and resulted in reduced effectiveness in their clinical performance.

By comparison to the other classes, the Year 4 class seemed stable and mature. They perceived little stress from examinations, assignments and workload. Perhaps they had developed some effective study and work habits and had gained some confidence in their ability to cope with academic tasks. They scarcely had concerns at all in the clinical area, presumably because of the development of some self-confidence and clinical competence. Their social-personal concerns demonstrated the typical difficulties one encounters when there is commitment and relative permanence in relationships with friends and members of the opposite sex. As well, they demonstrated disengagement from the university experience and the stress of stepping into another phase of life.

For all classes, the academic concerns were typical of university students; the social-personal concerns were typical of young people as they move from adolescence into adulthood; and most of the clinical concerns were similar to those of other nursing students as reported in the literature.

The main recommendations for remedial action were:

1. orientation of both faculty and students to the student services available. These include assessment of reading and study skills and plans for improvement, development of writing skills, and assistance in communication skills and relationship development.

2. encouragement of faculty to review both academic and clinical assignments designated as stressful to determine the possibilities for modification or substitution.

3. reminder to faculty to clarify and specify expectations for all assignments.

4. provision of specific, thorough orientation sessions for clinical experiences.

5. provision for further study into effects of teacher behavior upon student clinical performance and development of programs to assist teachers to assess their teaching effectiveness and make appropriate changes.

The findings of this study that varied from those of other studies served as a reminder that the study was specific to one group of students at particular points in time. The findings cannot be generalized. However, there is enough resemblance of the findings to those of other studies to cause speculation about the existence of types of stress common to all university nursing students. Identification of this group is an area that warrants further study.

A study into the sources of stress in university nursing students has value. After measures are taken to reduce stress, there will be greater freedom and opportunity for the student to build an identity and develop her potential for the future.

REFERENCES

- Dye, Celeste A. Self-concept, anxiety and group participation. *Nursing Research*, 1974, 23 (4), 301-306.
- Elfert, Helen. Satisfying and stressful incidents reported by students during the first 2 years of a new baccalaureate program in nursing. *Nursing Papers*, 1976, 8 (2), 36-43.
- Flanagan, John C. The critical incident technique. *Psychological Bulletin*, 1954, 51 (4), 327-358.
- Fox, David J., Diamond, Lorraine K. and Associates. *Satisfying and stressful situations in basic programs in nursing education*. New York: Bureau of Publications, Teachers College, Columbia University, 1965.
- Garrett, Anne, Manuel, Debra and Vincent, Corinne. Stressful experiences identified by student nurses. *Journal of Nursing Education*, 1976, 15 (6), 9-21.
- Meyers, Joel and Martin, Roy. Relationships of State and Trait Anxiety to Concept-Learning Performance. *Journal of Educational Psychology*, 1974, 66 (1), 33-39.
- Rothrock, Jeannette. Stresses on students. *New Trail*. Edmonton: University of Alberta, June 1974, 8-10.
- Selye, Hans. *Stress without distress*. Scarborough, Ontario: The New American Library of Canada, 1974.
- Sheehy, Gail. *Passages: Predictable crises of adult life*. New York: Bantam Books, 1976.

RESUME

Origine du stress chez les étudiants universitaires en Sciences Infirmières

La présente étude a été entreprise pour déterminer les origines du stress chez les étudiants inscrits à un programme donné en sciences infirmières afin de trouver des moyens de diminuer ce stress. Les étudiants des quatre cours du programme de premier cycle de l'université de Western Ontario se sont rencontrés à la fin du premier et du second semestre de l'année universitaire. Ils ont utilisé la technique de l'incident critique pour relater de un à trois incidents qu'ils avaient jugés stressants au semestre précédent. L'analyse des données a montré trois principaux domaines de préoccupations: universitaire, clinique et socio-personnel. On a élaboré un profil des origines du stress pour chaque classe et chaque semestre. Ces profils étaient représentatifs de la phase que traversaient les étudiants et de leur place dans le système éducatif. Des recommandations particulières ont été formulées en ce qui concerne la révision du programme, l'étude du comportement des enseignants et les changements dans les travaux des étudiants afin de réduire le stress dans le cadre de ce programme.