

MEASURING THE CONCERNS OF NURSES IN TRAINING:  
THE DEVELOPMENT AND TRIAL OF AN INSTRUMENT BASED ON FULLER'S  
SELF-TASK-IMPACT STAGE THEORY

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ABSTRACT

Fuller's "theory of concerns" predicts that trainee and beginning teachers progress through three stages: concerns about self, concerns about the tasks of teaching, and finally concerns about the impact of teaching on pupil learning. The research described in this paper applies Fuller's theory to the concerns of nurses in training, especially during practicum periods. An inventory of concerns was developed and administered to three samples of student nurses at both junior and senior levels of their training course: initially in a pilot study to 126 student nurses; subsequently in revised form in a main study to 140 student nurses; finally with further revision in a follow-up study to 186 student nurses. The paper describes the validation of the instrument and its progressive refinement, and the application of Fuller's stage theory to the actual concerns of student nurses as they undertake periods of clinical experience.

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A review of the nursing literature reveals that much of nurse education has been based on tradition, together with perceptions of what is practical and useful. Where there has been any conscious attempt to underpin curriculum design with theory, the perspectives drawn upon have come mainly from social or behaviourist psychology. Few studies have looked at preparation for the nursing profession from the student's point of view.

In the present collaborative study, the researchers surveyed the field of education to see if there were any useful directions for approaching the questions which have been posed about clinical learning in nurse education. The most promising line emerged from the work of developmental theorists, in particular Fuller and her associates from the University of Texas (Fuller, 1969, 1970; Fuller and Brown, 1975; George, 1978; Feiman Nemser, 1983; Hall, 1985). Their conceptual framework, derived from studies of trainee and beginning teachers, appears to afford insights into the stages that neophytes from any profession pass through as they either start their initial training, or make an entry into their chosen career.

#### Stage Theory in Nursing

In nursing, Patricia Benner is probably the best known of the writers who have closely examined the development of intending nurses from tentative beginnings to mastery. In her definitive text, *From Novice to Expert* (1984), she traces the stages through which students develop on their way to becoming competent professional nurses. Many of her ideas are consistent with those of Fuller et al. Experience is her main prerequisite for expertise, a claim which some educators would challenge. She concludes that the problem solving skills of beginners differ vastly from those of experts, and attributes that change to what they have experienced along the way, rather than to factors such as age or maturity.

Five stages of development are described. Novice students begin by practising skills and procedures in a rule-driven environment independent of a specific context, which limits flexibility. In the second stage, advanced beginners gradually relate practice to their environment, often through interaction with patients, though she notes that they take in only limited aspects of the situation. "It is new, too strange, and besides they have to concentrate on remembering the rules they have been taught" (p.24). By the third stage, which she labels as competent, she believes students can accommodate to concepts for planning activities, and are able to cope with a more diverse range of clinical skills. Then by stage four, proficient nurses can relate to typical events in nursing practice, and know how to plan appropriate responses. They can recognise deviations from the norm, adopt a holistic perspective on patient care, and use maxims for directing their practice. By the time nurses reach the fifth or expert stage, they no longer rely on heavily rules or maxims. Benner holds that experience has now equipped them with "an interactive grasp of each situation" (p.32). They are professionals, who can operate as consultants, document new clinical knowledge, and describe expert nursing performance along with expected patient outcomes.

#### Stage Theory in Education

In education, Frances Fuller began her work on the concerns of teachers by developing an instrument called the Teacher Concerns Statement, and used it to evaluate issues about which both practising teachers and trainees were worried. From her findings, she derived a theory which proposed a hierarchy of development involving major areas of concern. She predicted that trainees and beginning teachers would progress through three stages on their way to mastery. The first involves concerns about self. The second relates to concerns about the tasks of teaching. The third includes concerns about the impact of teaching on pupil learning.

As further developed by George (1978), it has been proposed that at the beginning of the teacher education program students have little or no experience of teaching. Without knowing the nature of the specific tasks involved, they cannot anticipate future problems or frustrations with any insight. In this initial stage, their worries are essentially about themselves, namely SELF Concerns. The emphasis is on survival. After some experience they become worried about their performance as teachers and their ability to manage the multiple demands of teaching. They have little

concern at this second stage about pupils' learning, but rather are developing quite specific concepts and anxieties about the nature and scope of their job as teachers, which are labelled TASK Concerns. The emphasis is on mastery. Only after the concerns of the first two stages have been resolved do the majority move on to focus upon the effects they have, and the environments they create in classrooms have, upon the learning of pupils, called IMPACT Concerns. The emphasis is on awareness of outcomes. It should be noted that this original group of developmental theorists and others after them hold that all intending teachers must pass through these stages, though they will do so at differing rates, with some not reaching fully the final level.

#### Clinical Experience in Nurse Education

It is apparent that such a model of concerns could be applied to nurse education. While Fuller originally conceived of self concerns as rather general (boyfriends, parents, uncertainties about career), it seems clear that students in nursing might well be expected to have initial worries not only about such personal matters, but about coping with a tertiary program, meeting course assessment demands, and surviving in the clinical setting. As they undertake clinical placements, they are likely to be initially at the survival level, unsure of their place or their real purpose in being there, worried about being accepted by registered nurses, and uncertain that they can complete tasks they will be called upon to perform. Concerns about SELF and strong self-doubts will persist for some with regard to the rightness of vocational choice, evaluation of their performance, and whether they are learning what they ought to in the situation. Then, as they progress through the training course and undertake subsequent clinical experiences, confidence does develop in their capacity to complete nurse tasks. They now are likely to become more concerned about themselves as nurses. There are attempts to discern what is real, particularly in the hospital setting, with questions about expectations of administrators and patients, influence and power, and the nature of rewards. The importance of conforming to social norms and role models is paramount. They want to be accepted by patients and staff, and are concerned very much about their adequacy in accomplishing nursing tasks at this mastery stage. Ideally, towards the end of their preservice program, students in nursing may become increasingly concerned about the patients. As they become aware of the outcomes of their behaviour, they would seek to better understand clients as persons, and to devise the right kind of nursing care to meet their individual needs. They would want to identify particular problems for which they can work out solutions. The concern with IMPACT may lead to

reflection on practice and a desire for self-improvement as clinical experience accumulates.

The traditional conception of teacher education has been challenged in another way as well, which also has implications for the practicum component of nurse education. Feiman Nemser (1983) emphasises the differences that occur in four important phases of learning that occur over a period of years:

a) Pretraining Phase. Teachers tend to underestimate the pervasive effects of their own schooling (Feiman Nemser, 1983, p.152), yet often fall back upon models which they recall when all else fails. Here is a point at which nursing differs from teaching, for in general contact with health care is intermittent rather than stretching, as schooling does over 12 years. Apart from those of mature age who may have worked in nurse-like roles before entering training, few are likely to have had actual nursing experience.

b) Preservice Phase. Both intending teachers and nurses undertake their formal preparation often with little appreciation of the relative importance or relevance of what is being taught. There is a general view amongst teachers that their teacher preparation is 'too theoretical and not sufficiently practical' (Watson, Hatton, Squires & Solimon, 1991; Hatton, 1989). Rarely do they mention intellectual strengths or subject matter acquisition. They want instructional techniques, methods of classroom control, and means for diagnosing learning problem, (O'Shea, 1981). In this phase, nursing preparation shares many common features with teacher education, though with nurses there is probably more emphasis on developing skills initially, and less attention to having students consciously reflect

upon their practice.

c) Induction Phase. This is usually restricted to the first full year of practice as both nurses and teachers come to grips with the realities of the school and classroom.

d) Inservice Phase. This covers the rest of the career, again with the acknowledgment that some do not come to reflect consistently upon their own practice and the impact they have upon pupils or patients.

These latter two phases are beyond the scope of the present study, though it is salutary to note that individuals appear to go through Fuller's stages of concerns, survival, mastery, impact, each time they are placed in an unfamiliar or demanding but new professional situation (appointment to another school or hospital, promotion, or change of level of responsibility).

The phase most relevant to the research issues addressed here is the preservice one, which parallels in so many ways programs of preparation for nursing. Feiman Nemser (1983, p.155) notes the prevailing myth that a university education has a liberalising influence which is largely dissipated by the conservative influences teachers have upon trainees during practice teaching. The practicum is universally regarded as the most valuable part of the preparation course. Numerous studies (Hoy, 1969; Cope, 1971) have found that student teachers become more custodial, conforming and bureaucratic after undertaking a practicum. Their

preoccupations are with discipline and management, their own teaching techniques, and keeping pupils busy, but rarely with how much is being learnt. In the clinical context, it seems inevitable that student values and attitudes will swing towards those of the specific nurses they come in contact with, particularly role models who make a strong impact upon them. During practicum experiences, student teachers who have often started out with idealistic expectations, begin to panic and realise how ill-prepared they are for classroom responsibilities. How they are assisted and supervised during this period becomes a crucial issue (Turney et al., 1982). Often they are left to work things out for themselves, and, as novices, they will misinterpret successes and failures, relying on what they think works regardless of the educational implications. In the school setting, both the co-operating teacher and the tertiary lecturer have distinctive and crucial contributory roles to play (Hatton and Eltis, in press) in providing feedback to the student, and in encouraging reflection upon practice. Similar issues must pertain to intending nurses in the clinical situation. Registered nurses and other health professionals must play a part by assigning students tasks, then giving feedback and evaluating how these have been performed. University staff will also have a distinctive contribution to make to learning by student nurses in the clinical setting.

#### Design of the Study

The purpose of the research was to examine nursing students' experience of the periods of practical clinical training interspersed throughout their university-based course. In general, the key questions about clinical experience were how do you learn?, what do you learn?, and from whom?, in a field setting. In particular, the following research questions were specified as a basis on which to develop instruments and procedures:

1. With whom do students spend most of their time during clinical experience?
2. What factors support or inhibit learning in this clinical period?
3. Do students view clinical experience as essentially a task acquisition exercise or a learning exercise?
4. What are the qualities, characteristics and attributes of the person, who in the students' perception, best supports them in clinical experience, and is most effective in the learning process?
5. How do students view the function and role of the Faculty teacher?
6. Can the concepts of Fuller (1969) and her associates in developmental theory in learning be applied to nursing?

This paper deals only with the investigation of the last question, and the reader is referred to the full documentation of the project for complete discussion and findings (Powell, Owens and Hatton, 1992). The overall project was conceived in three phases: an initial Pilot Study to develop hypotheses and trial instruments, a Main Study which functioned as a

substantive investigation of the research questions with the use of revised instruments, and a Follow-Up Study to confirm major findings with instruments that had undergone some further refinement. All three phases were carried out in hospitals in the western region of metropolitan Sydney

in conjunction with the University of Western Sydney.

#### PILOT STUDY

The research questions were developed over a twelve month period involving a preliminary survey and a Pilot Study. The first survey took the form of students' anecdotal accounts of clinical experiences, collected immediately following such an experience. The opinions offered revealed strong thoughts and feelings of students about the way in which they were expected to adapt to their new role in the practice of nursing. Responses supported Fuller and Bown's viewpoint that education for real practice given on campus did not appear to reflect either what they really wanted or needed to learn. Students in nursing, as did preservice teachers, identified difficulties in adapting to a different institution. Responses reflected their need to cope with both the University and the Health Agency. Nurse learners in the practicum also appear to 'straddle both worlds with no secure footing in either' (1975, p.49). It seemed suitable to the researchers to explore issues of concern to students from their own perspective.

As a portion of the questionnaire (Version A) developed for the Pilot Study, a set of 15 items about "concerns" was included. This was based on and adapted from original work by Fuller and George (1970, in Arends, 1989, p.64). These items were prepared against the background of anecdotal data gathered in the initial survey. The Pilot Study was conducted with a sample of 126 students. Of these, 62 were enrolled in the Junior Phase of the program, while 64 were completing the final phase.

Seniors seemed very concerned about their ability to meet the needs of patients, being accepted as a professional, and feeling adequate as a nurse. They were less worried than Juniors about making nursing diagnoses, doing well in assignments, getting the work done and stimulating patients to get better. The researchers concluded that theories drawn from developmental theorists in the mainstream of education, particularly that of Fuller and her associates, appeared to have an application to nursing. The concerns instrument, as adapted by the researchers, was found suitable for application to students in nursing during their clinical experience. The decision was made to pursue the study by modifying the instrument further for use in the Main Study.

#### MAIN STUDY

##### Sample

Participants in the study were drawn from students enrolled in the Diploma of Health Science (Nursing) course conducted in a university context in the Western area of Sydney. The Junior group (N=104) were contacted during a period of clinical practice which coincided with a component of the curriculum on Family Health Nursing, early in the course. The Senior group (N=36) were contacted just prior to graduation in conjunction with a period of clinical practice in a wide range of specialities. In all, four hospitals were involved. Details of sex, age, and prior experience are included in Table 1. Junior and Senior groups were similar.

##### Table 1

Significantly, these data emphasise that, in contrast to most preservice teacher education students, nursing students are likely to be older and have notable prior experience.

## Instrument

The concerns questions, as included in the Pilot Study, had revealed significant student insights into their worries. Further work by the Fuller team (George, Borich, and Fuller, 1974) was examined for suitability of application to student nurses. Some responses in the Pilot Study indicated student difficulty in understanding a few statements. Nine items were modified in an attempt to clarify meaning and eliminate ambiguity. As well, data from the preliminary survey of anecdotal accounts and responses from the Pilot Study revealed other significant areas of student nurse concerns not previously identified. A further ten statements were added to the instrument to accommodate these worries, and this 25-item questionnaire (Version B) was included in the battery administered to the sample.

## Findings

It was anticipated, based on teacher education research, that nursing students might show differing degrees of concern for aspects of practice related to Self, Task, and Impact. Specifically, we expected that Juniors would express higher levels of Self and Task concern than Seniors, and that Seniors would express higher levels of Impact concern than Juniors. These general hypotheses are based on the developmental concepts of Fuller et al., and assume that students in the early, or Junior, years will be worried about Self and Task concerns, which must be addressed before Impact concerns are considered. Students in later, or Senior, years who are nearing the end of their course will have dealt with at least some of these self concerns and will feel moderately confident about mastery of the professional role; they will as well be at the stage where they are beginning to worry about their impact on patients and their needs. The American research has been limited, however, in the range of variables taken into account in this developmental framework. The focus has been placed on Status, i.e., location in the sequence of years that comprise the teacher education course, e.g., Junior or Senior. Enrolments in nursing courses in Australia seem less homogeneous than those in teacher education in the USA, and demand that additional variables be considered, namely Age and Previous Nursing Experience. A factor analysis was undertaken of the 25 items which were used to assess levels of concerns in the sample. In both statistical and explanatory terms, the four-factor solution turned out to be both powerful and elegant (see Table 2). In arriving at a final grouping of items, a criterion factor loading of .52 was selected as the level for inclusion.

Table 2

Factor 1:	Item 20	Begin ready to practise as an RN.
	Item 8	Feeling inadequate in the nursing role.
	Item 22	Deciding correct nursing practice.
	Item 7	Making and recording nursing diagnoses.
	Item 3	Doing well when the registered nurse is present.
	Item 19	Becoming involved in a life threatening situation.
	Item 10	Being accepted and respected by professional persons.

Factor 1, which included seven items and accounted for approximately 40% of the variance, formed a group of Task concerns about adequacy in the nursing role. All students appear to be preoccupied with mastering this task by addressing the question, "How well am I doing as a nurse?".

Factor 2:

Item 12	Being able to promote better health for patients.
Item 11	Learning about different patients every day.
Item 1	Coping with lack of suitable equipment for patient care.
Item 13	Whether patients are getting what they need.
Item 9	Being able to stimulate sick patients to try to get better.
Item 5	Meeting the needs of different kinds of patients.

Factor 2, which included six items and accounted for approximately 8% of the variance, comprised a group of Impact concerns about promotion of patient care. Students seem to be addressing the question "How well do I look after the clients' needs?".

Factor 3:

Item 4	Doing well when the faculty lecturer is present.
Item 18	Meeting my clinical objectives.
Item 14	Doing well in my clinical assessment.
Item 17	My ability to review my own practice.
Item 3	Doing well when the registered nurse is present.

Factor 3, which included five items and accounted for approximately 7% of the variance, was made up of a group of Self concerns about performance in learning. Students appear concerned with academic survival and address the question, "How well am I achieving?".

Factor 4:

Item 24	Spending too much time as a worker rather than a learner.
Item 25	Understanding the purpose of clinical experience.
Item 23	Having to work in a team.
Item 6	Spending too much time on non-nursing duties.

Factor 4, which included four items, was less clear cut than the others, but reflected Self-related confusion over the purpose of clinical experiences and accounted for approximately 5% of variance. The question seems to be "How well do I understand the conflicting demands of the setting?". Taken together, Factors 3 and 4 may be seen as associated components of Self concerns, and clearly relate to survival as a learner. For each subject, Scores were computed for each factor by totalling the responses for the items in each set and then dividing by the number of items. These Scores were subjected to Analysis of Variance for differences with regard to Age, Status, and Experience. With regard to Self, the only significant finding is that Juniors express more concern ( $p < .01$ ) about their performance and achievement than Seniors do (see Table 3). Age and Experience do not appear as significant variables at this level of analysis.

### Tables 3A and 3B

With regard to Task, the younger students express more concern ( $p < .01$ ) about mastering the nursing role than the older students (see Table 3). Students with less experience, or more, express more concern ( $p < .05$ ) than those with greater experience.

### Table 3C

With regard to Impact, the younger students express more concern ( $p < .05$ ) about promoting patient care than the older students (see Table 3). Status and Experience do not appear as significant variables at this level of analysis.

### Table 3D

Rather than becoming more concerned with patients and their needs, the older the students are, and the more experience they have had, the less worried they seem to be about impact concerns. This finding is contrary to what would be predicted from Fuller's developmental theory, and is the major matter to be confirmed in the Follow-Up Study.

### Follow-Up Study

#### Sample

As for both the Pilot Study and the Main Study, participants in the Follow-Up Study were also drawn from the nursing education programs in western Sydney. A total of 186 students made up the sample. A Junior group ( $N=40$ ) was composed of students enrolled at an early stage in the Bachelor of Nursing course. An Intermediate group ( $N=82$ ) was formed of students in the middle stage of the Diploma of Health Science (Nursing). A Senior group ( $N=64$ ) was attending the final semester of the Diploma course. Details of sex, age, and prior experience are included in Table 4.

### Table 4

The Senior group has fewer males than the others, and seems markedly more experienced. Overall, the Follow-Up Study sample is quite similar to the Main Study sample in sex distribution, mean age, and amount of prior

nursing experience.

### Instrument

Three of the items from the previous concerns questionnaire (Version B) were modified by rewording in minor ways. In addition, five new items were written. The resulting form of the concerns questionnaire (Version C) had 30 items.

### Findings

As in the Main Study, a factor analysis was undertaken of the 30 items about concerns. A five-Factor solution emerged as being the most appropriate, with a criterion factor loading of .54 being used for inclusion of items in the factors.

### Table 5

The first four of the factors seem identical in interpretation to those from the analysis in the Main Study in meaning and interpretation, and in proportion of the variance represented. The final factor can be seen to represent an additional aspect of survival at the Self level.

Factor 1: 8    Feeling inadequate in the nursing role

9. Being able to stimulate sick patients to try to get better
5. Meeting the needs of different kinds of patients
20. Being ready to practise as an RN
22. Deciding correct nursing practice
10. Being accepted and respected by professional persons
21. Being assigned to work with a hospital trained RN

As in the Main Study, the seven items in Factor 1 formed a group of Task concerns about adequacy in the nursing role.

- Factor 2:
12. Being able to promote better health for patients
  3. Finding time to talk to patients
  17. Being able to review my own practice
  26. Having time to evaluate my contributions to patient care
  13. Whether patients are getting what they need
  27. Learning about patients from family and friends

As in the Main Study, the six items in Factor 2 created a set of Impact concerns about promotion of patient care.

- Factor 3:
14. Doing well in my clinical assessments
  4. Doing well when the faculty lecturer is present
  15. Learning the routine of the clinical situation
  18. Meeting my clinical learning objectives
  16. Getting the work done in time

As in the Main Study, the five items in Factor 3 comprise a group of Self concerns about performance in learning.

- Factor 4:
23. Having to work in a team
  24. Spending too much time as a worker rather than a learner
  25. Understanding the purpose of clinical experience

As in the Main Study, the three items in Factor 4 represent Self concerns about understanding the purpose of clinical experiences.

- Factor 5:
6. Spending too much time on non nursing duties
  2. Feeling under pressure too much of the time
  1. Coping with lack of suitable equipment for patient care

The three items in Factor 5 form a group of Self concerns about coping with stress. Students seem to be addressing the question "How well do I respond to pressure and frustration?".

Factor "Scores" were computed for each subject as in the Main Study, and a series of analysis of variance computations was conducted with regard to Age, Status, and Experience. With regard to Self, the Junior and Intermediate groups expressed more concern than Seniors about performance and achievement ( $p < .01$ ), and about understanding the purposes of clinical experience ( $p < .01$ ). Students with the least experience expressed most concern about achievement ( $p < .05$ ); students with some, but not more than five years, experience stated greatest concern about purposes of clinical experience ( $p < .05$ ) (see Table 6).

Tables 6A, 6B, and 6C

With regard to Task, the Junior and Intermediate groups, and students with no experience, expressed the most concern about being adequate in the nursing role ( $p < .001$ ) (see Table 6).

## Table 6D

With regard to Impact, the Junior and Intermediate groups stated most concern about promoting patient care ( $p < .05$ ) (see Table 6).

### Discussion

In both the Main Study and the Follow-Up Study, students at the lowest levels (Junior and Intermediate groups), and students with no, or very little prior experience, expressed the most concern about aspects of Self concerned with survival. Principally these aspects are concerned with academic performance and with clarifying the purposes of clinical experience. Coping with stress, though identifiable as a factor, was not differentiated by Age, Status, or Experience. These findings are in agreement with predictions by Fuller et al., based on teacher education students, that survival issues are salient early in a training program. Similarly, in both the Main and Follow-Up Studies, students in the Junior and Intermediate groups, and students with little or no prior nursing experience, express the greatest concern with the task of mastering the nursing role. These findings, too, are in accord with the Stages of Concern theory proposed by Fuller and her colleagues. Mastery of basic skills and procedures, and feeling adequate with newly learned professional responsibilities, also are salient early in a training program.

In the Impact area, however, findings from both Main and Follow-Up Studies are contrary to Stages of Concern Theory. In the Main Study, younger students expressed more concern than older students about the effects of nursing care on their clients, the patients. In the Follow-Up Study, Junior and Intermediate students experienced more concern than Senior students about this impact. In theory it is the older students, or students at higher levels, who would be expected to show such concern. For nurse educators this may indicate that many nurses do not get beyond Task preoccupations to a stage where their major focus is upon the impact their care has on patients. While the qualitative information gathered elsewhere in these Studies shows a fair degree of student concern for clients and their needs, it would appear that curriculum makers in nursing face a serious challenge in devising ways to ensure that Seniors have moved beyond what they seem to see as the techniques and procedures constituting nursing competence to a wider view which enables them to define and address the problems of individuals for whom they are responsible in the health care system. An alternative view is that through their clinicals (or, for some, through periods of prior experience) students have already addressed Impact concerns and already resolved them. But if the findings in teacher education research are transferable, then this would seem unlikely, and courses need to provide specific opportunities for students to define and deal with concerns about patients.

The scale of concerns has been demonstrated to be a useful research tool which has now been modified and refined into a reliable instrument. Having started from the work of Fuller and her associates, the researchers have trialed first 15, then 25, and finally 30 concerns in nursing. Some items

have been discarded, and others rewritten or developed anew. The concerns questionnaire has been administered to large groups of Junior,

Intermediate, and Senior nursing students during 1991 and 1992 under varying sampling conditions to cross check major findings. The samples are of sufficient size to validate its effectiveness as an instrument for research. It seems now proven to be of value as a reasonably well developed tool for research in other programs of nurse education.

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Table 1. Characteristics of the Main Study Sample: Sex, Age, Prior Nursing Experience

	Junior Group	Senior Group
N	104	36
Female	91 (88%)	32 (89%)
Male	13 (12%)	4 (11%)
Age: 18-19 years	47 (45%)	-
20-24 years	29 (28%)	21 (58%)
25 years or more	28 (27%)	15 (42%)
Prior Nursing Experience:		
None	69 (66%)	23 (64%)
Less than 2 years	16 (16%)	5 (14%)
More than 2 years	19 (18%)	8 (22%)

Table 2. Main Study: Principal Components Factor Analysis of the Items in the Concerns Questionnaire ,Version B.

Questionnaire B	Loadings			
	Factor 1	Factor 2	Factor 3	Factor 4
Item				
20	.75			
8	.71			
22	.71			

7	.66	
3	.56	.52
19	.53	
10	.52	

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12	.74	
11	.68	
1	.67	
13	.64	
9	.63	
5	.61	

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4	.80	
18	.75	
14	.75	
17	.57	

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24	.77	
25	.72	
23	.63	
6	.52	

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Four-Factor Specified Solution with Varimax Rotation (Criterion Level = .52)

Items which did not reach the criterion level: 2, 15, 16, 21

Proportion of Variance:- Factor 1 - 39.7%, Factor 2 - 8.3%, Factor 3 - 6.9%, Factor 4 - 5.3%

Table 3A. Age, Status and Experience Analysis of Variance for the "Performance in Learning Score" (Concerns Questionnaire, Version B).

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Source of Variance	df	MS	F
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Main Effects

Age	2	1.65	2.05
Status	1	5.98	7.45**
Experience	2	.39	<1

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Table 3B. Age, Status, and Experience Analysis of Variance for the "Purposes of Clinical Experience Score" (Concerns Questionnaire, Version

B).

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Source of Variance	df	MS	F
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Main Effects

Age	2	.62	<1
Status	1	.02	<1
Experience	2	.21	<1

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Table 3C. Age, Status, and Experience Analysis of Variance for the "Adequacy in Nursing Role Score" (Concerns Questionnaire, Version B).

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Source of Variance	df	MS	F
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Main Effects

Age	2	3.84	6.2**
Status	1	.65	1.05
Experience	2	2.48	4.02*

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Table 3D. Age, Status, and Experience Analysis of Variance for the "Promotion of Patient Care Score" (Concerns Questionnaire, Version B).

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Source of Variance	df	MS	F
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Main Effects

Age	2	2.85	4.23*
Status	1	.56	<1
Experience	2	.28	<1

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\* p<.05  
\*\* p<.01  
\*\*\* p<.001

Table 4. Characteristics of the Follow-Up Study Sample: Sex, Age, Prior Nursing Experience.

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	Junior Group	Intermediate Group	Senior Group	
N	40	82	64	
Female	33 (89%)	69 (86%)	60 (95%)	
Male	4 (11%)	11 (14%)	3 (5%)	
Age: 18-21 years		16 (43%)	44 (56%)	21 (33%)
22-28 years		10 (27%)	16 (20%)	25 (40%)
29 years or more		11 (30%)	19 (24%)	17 (27%)
Prior Nursing Experience:				
None	31 (78%)	68 (83%)	42 (65%)	
Less than 5 years		3 (8%)	9 (11%)	12 (19%)
More than 5 years		6 (14%)	5 (6%)	10 (16%)

Note: Some students did not indicate sex or age.

Table 5. Follow-Up Study: Principal Components Factor Analysis of the Items in the Concerns Questionnaire, Version C.

Questionnaire C	Loadings				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Item					
8	.71				
9	.67				
5	.66				
20	.63				
22	.58				
10	.54				
21	.54				
12		.71			
3		.67			
17		.67			
26		.66			
13		.66			
27		.58			
14			.76		

4	.72
15	.67
18	.63
16	.61
<hr/>	
23	.66
24	.66
25	.55
<hr/>	
6	.68
2	.65
1	.61

Five-Factor Solution with Varimax Rotation (Criterion Level = .54)  
 Items which did not reach the criterion level: 7, 11, 19, 28, 29, 30  
 Proportion of Variance: Factor 1 - 40.7%, Factor 2 - 8.0%, Factor 3 - 5.0%, Factor 4 - 4.6%,  
 Factor 5 - 3.5%

Table 6A. Age, Status, and Experience Analysis of Variance for the "Performance in Learning Score" (Concerns Questionnaire, Version C).

Source of Variance	df	MS	F
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Main Effects

Age	2	1.26	1.40
Status	2	4.87	5.43**
Experience	2	3.98	4.44*

Table 6B. Age, Status, and Experience Analysis of Variance for the "Purposes of Clinical Experience Score" (Concerns Questionnaire, Version C)

Source of Variance	df	MS	F
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Main Effects

Age	2	.53	<1
Status	2	2.85	4.78**
Experience	2	2.05	3.44*

Table 6C. Age, Status, and Experience Analysis of Variance for the "Coping with Stress Score" (Concerns Questionnaire, Version C)

Source of Variance	df	MS	F
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Main Effects

Age	2	1.21	1.38
Status	2	2.07	2.35
Experience	2	1.57	1.79

Table 6D. Age, Status, and Experience Analysis of Variance for the "Adequacy in Nursing Role Score" (Concerns Questionnaire, Version C)

Source of Variance	df	MS	F
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Main Effects

Age	2	<1	1.40
Status	2	9.08	13.15***
Experience	2	5.11	7.40***

Table 6E. Age, Status, and Experience Analysis of Variance for the "Promotion of Patient Care Score" (Concerns Questionnaire, Version C)

Source of Variance	df	MS	F
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Main Effects

Age	2	1.35	2.03
Status	2	2.79	4.19*
Experience	2	.57	<1

\* p<.05  
\*\* p<.01  
\*\*\* p<.001

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and co-workersuller, 1969, 1970; Fuller and B stage, they no longer rely The Teacher Concerns instrument was further developed over the next decade (George, Borich, and Fuller, 1974; George, 1978). It wasSincreasingly

demonstrate awareness of outcomes resulting from nursing care to meet impact on patients' well-being. By the time nurses reach the fifth or