

SOURCES OF STRESS IN THIRD YEAR BACCALAUREATE NURSING STUDENTS

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Introduction

Nurse educators often question the value of videotaping experiences because they provoke anxiety in participants. Although the use of videotape to help students improve their interpersonal skills is well documented in the literature, student anxiety about being videotaped has not been well investigated. High anxiety levels observed in some students may indicate that they do not benefit from the experience, and may even be negatively affected. Fuller and Manning (1973) contended that the self-confrontation inherent in video playback has potential for help and for harm. Anxiety is a response to self-confrontation.

This is a report of the findings of a pilot test on a questionnaire designed to determine whether self-reported anxiety in videotape experiences is a predictor of learning, and whether certain characteristics of learners are major predictors of anxiety. Implications for management of anxiety and questions for further study are discussed.

Literature Review

In a review of self-confrontation by video playback in teacher education, Fuller and Manning (1973) identify stress reactions as one outcome of the intense self-focusing inherent in videotaped replay. This feedback may be perceived as threatening and have inhibitory effects. They explore characteristics of student teachers who are most likely to benefit from self-confrontation. Subject variables are addressed under attitudes about self, anxiety, body image, dogmatism, and capacity to change. They conclude that those people most likely to benefit from self-confrontation are competent individuals who view themselves positively. Poor performers who view themselves negatively seem to need a combination of feedback methods; including verbal, written, and audio or video feedback.

An experimental study of nurses by Carpenter and Kroth (1976) supports the effectiveness of videotaped role playing to teach

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communication skills. They noted that handling learner self-confrontation may be a primary determinant of outcomes.

Finley, Kim, and Mynatt (1979) discuss learner characteristics that should be considered when using videotaped feedback to teach relationship skills in nursing. Students not experiencing anxiety seemed to have a positive self-concept, and tended to benefit more from the experience. Anxieties were centered on body image, appearance on videotape, and ability to demonstrate effective use of interpersonal skills.

Several authors describe their approaches to decreasing such anxiety. Smyth (1980) states that most people "suffer a psychological jolt" from seeing themselves on videotape for the first time, and describes preparation techniques that help minimize this. He states the choice of preparation depends on assessment of the personalities involved, but he does not give criteria for assessment.

Rynerson (1980) describes the inquirer role of the teacher as the most crucial element in video playback experiences. Student participation in establishing evaluative criteria for videotape experiences helps decrease learner anxiety according to Christian and Smith (1981). Shaffer and Pfeiffer (1976) note that there is always a degree of student anxiety when they are videotaped for the first time, but that this anxiety need not escalate if a supportive climate is established and severe critical evaluation is avoided.

Purpose

Our decision to develop a questionnaire that would investigate student reactions to videotaping experiences emerged from an observed practical problem. Students expressed anxiety about being videotaped. This led some faculty members to question the value of videotaping as a learning experience, and whether videotaping could be detrimental for certain students.

We believed that the anxiety voiced by students did not inhibit learning from the experience, and we wanted an objective measure to support our impressions. We wished to verify our observations that student anxiety varied considerably throughout the experience. We also wanted to find out which students were the most anxious, and whether certain characteristics were related to this anxiety.

Method

Questionnaire

The questionnaire used (Table 1) was developed to evaluate students perceptions of their videotape experiences in relation to the variables of self-concept, self-esteem, and self-image as

identified by Finley, et al. (1979). The first item asked for a self-report of student anxiety before, during, and after the experience. This was the pilot test; there was no previous use of the instrument to establish validity or reliability.

Table 1

Feedback from Questionnaire for Videotape Experiences

Statement	Severe	Responses		
		Moderate	Low	
1. The word which best describes my anxiety level				
	%			
a) immediately before	n=11 (16.9)	40 (61.5)	13 (20.0)	
b) during	3 (4.6)	42 (64.6)	19 (29.2)	
c) while viewing the videotape	2 (3.2)	23 (35.4)	13 (60.0)	
	Strongly Agree	Agree	Disagree	Strongly Disagree
2. I have learned from my videotape experience this year.	18 (27.7)	35 (53.8)	9 (13.8)	3 (4.6)
3. I don't like to look at myself on videotape.	5 (7.7)	22 (33.8)	33 (50.8)	4 (6.2)
4. I have high expectations of myself during videotape interview.	4 (6.2)	25 (38.5)	34 (52.3)	1(1.5)
5. I usually feel I will do well in learning situations.	4 (6.2)	48 (73.8)	12 (18.5)	0
6. I lack self-confidence in learning situations	2 (3.1)	14 (21.5)	46 (70.8)	3 (4.6)
7. When reviewing my video, I am concerned with how I look.	0	28 (43.1)	32 (49.2)	5 (7.7)
8. I am concerned about the appropriateness of what I said during my videotape.	28 (42.1)	33 (50.8)	3 (4.6)	1 (1.5)
9. Following analysis of my videotape I feel good about my abilities.	1 (1.5)	40 (61.5)	18 (27.7)	3 (4.6)

*N=65; numbers not adding up to 65 are because students did not respond to some questions.

Respondents

Sixty-five female baccalaureate nursing students voluntarily completed the questionnaire at year-end classes, as part of the course evaluation. This sample represented 66% of the total population of students involved, and consisted of 20 students in second year, 28 in third year, and 17 in fourth year. The age range was 19-24 years.

All students had previous experience with videotaping, although variations in both frequency and involvement make exact comparisons impossible. The same theoretical model for helping relationships (Gazda, Walters, & Childers, 1977) was used with all groups. Second year students had two experiences that focused on self-awareness and on the development of empathy. Third and fourth year students were expected to use a broader range of the dimensions of the helping relationship, and to analyze their responses in greater depth. They also had two experiences each year.

In addition to the theoretical model of helping relationships used, there were a number of other similarities in the experiences of each group. None of the experiences were used for evaluation or were graded in any way, but participation was required for course completion. As well, in all experiences

- students were oriented to videotaping equipment, environment, and process;
- the same physical environment was used;
- students were given a brief profile of the client situation before the interview;
- interviews lasted approximately ten minutes;
- immediate positive feedback was given by faculty;
- students had an opportunity to view their performance and to get further feedback from faculty for analysis of their responses;
- confidentiality was assured and all videotapes were erased.

Data Analysis

Overall anxiety scores were calculated by assigning 3 points to severe anxiety, 2 points to moderate anxiety, and 1 point to low anxiety responses on Item 1. Data analyses included demographic findings and stepwise multiple regression with "total anxiety score" as the dependent variable and "pre-videotape anxiety", "videotape anxiety", and "playback anxiety" as the independent variables. Hierarchical multiple regression was done with "pre-videotape anxiety" as the dependent variable and with learner characteristic variables. Data analysis was completed using the Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Stunbrenner, & Bent, 1970).

Findings

Total anxiety scores became progressively lower as the videotape experience progressed (Table 1). Over 61% had moderate anxiety just before and during videotaping, whereas 60% experienced only low anxiety during the playback sessions.

Pre-videotape anxiety was the best predictor of overall anxiety, accounting for 82% of the variance in total anxiety scores (Table 2). Severe anxiety before videotaping was reported by 11 students, but only three of these indicated that they did not learn from videotaping.

The majority of students (81.5%) reported that they had learned from videotape experiences. Slightly over 40% didn't feel comfortable viewing themselves on videotape, and about 40% had high expectations of their performance during videotaping. Approximately 18% did not feel that they usually do well in learning situations (Table 1).

Hierarchical multiple regression showed no significant correlation between pre-videotape anxiety and perceived learning from videotape experiences (Table 3). The strongest predictor variable for pre-videotape anxiety was "self-confrontation" (not wanting to look at oneself), which alone accounted for 56% of the variance (simple r) in pre-videotape anxiety scores. "Lack of confidence" had the next highest predictive ability.

The relationships between pre-videotape anxiety and all of the variables except "learning from videotape experience" were significant at below the .005 level (Table 3).

Limitations

A number of variables that are not controlled can be expected to influence questionnaire results. The sample consisted of three subgroups having different frequency and depth of exposure to videotaping. However, these subgroups are too small to make meaningful comparisons.

Variations in teacher approach are inevitable in a non-controlled study, although the same person taught both second and fourth year groups. The person interviewed by students in each group varied, as did the client situation simulated. Each group was operating from a different base of accumulated knowledge, and progressively higher level learning objectives were expected.

A more objective measurement both of anxiety and of learning outcomes is desirable. Baseline anxiety levels may vary significantly from student to student. No attempt was made to include this in the pilot study which relied on self-reported anxiety

Table 2

**Stepwise Multiple Regression with
Total Anxiety Score as the Dependent Variable**

Variable	Multiple R
Prevideotape anxiety	0.81741
Videotape anxiety	0.91676
Playback anxiety	1.0000

Table 3

**Hierarchical Multiple Regression Analysis with Prevideotape Anxiety
as the Dependent Variable**

Step	Variable Entered	Multiple R	Significance
1	Have learned from VT	.18160	.169
2	Don't like to look at self on VT	.55982	.000
3	Lack confidence	.56569	.000
4	Concern with appropriateness of what said during VT	.57194	.000
5	Following analysis, feel good about abilities	.58477	.000
6	Concern with how I look on VT	.58498	.001
7	High expectations of self during VT	.58501	.002
8	Self-confidence	.58881	.004

and learning. Use of the delayed recall process is a limitation in the reliability and validity of self-reported anxiety.

Discussion

The findings show that anxiety was common for the students, especially just before videotaping, but what is encouraging for educators is that anxiety did not preclude learning. Even among those students experiencing severe pre-videotape anxiety, 73% still reported that they had learned from the experience. However, as recommended by Finley et al. (1979), the experience had particular structural components, such as no assigned grade, which were designed to minimize student perceived risk.

A significant relationship was found between anxiety and being uncomfortable viewing oneself on videotape. The self-confrontational aspects of videotape experiences has been cited by others (Fuller & Manning, 1973; Finley et al., 1979) as being a strong contributor to negative feelings associated with videotaping. These aspects of videotaping may be especially threatening to those students in late adolescence or early adulthood, who are already preoccupied with their body image, sexuality, and evolving self-concept (McCandless, 1972).

Anxiety levels fluctuated during the videotape phases. They were highest just before videotaping, but they dropped considerably during the playback phase. This suggests that student preconception of videotaping is an important area for educators to address. Students who understand the objectives and process of videotaping may be less apprehensive. Instructors who have seen themselves on videotape should be able to empathize more easily with students, and help them deal with anxiety (Berger, 1970).

Only four percent of the students reported no learning despite experiencing low anxiety. The factors that impede learning in this case should be further considered. General areas to pursue include learner characteristics, teacher attitude, and educational design. An objective measurement of anxiety may also assist in better differentiation of overall anxiety.

Conclusion

This pilot test suggests that student self-reported, moderate-to-severe, pre-videotape anxiety does not inhibit learning in carefully designed videotape experiences. Faculty can expect many students to express anxiety prior to videotaping. The self-confrontational aspects of videotaped replay, and lack of self-confidence seem to be major reasons for student anxiety. This should be anticipated and managed as a normal part of the learning process. Knowledge that most students report positive learning in this situation is reassuring for educators. The tendency to abandon

anxiety provoking experiences must be avoided and attention given to the most effective design and teacher approach in this area.

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RÉSUMÉ

L'enregistrement magnétoscopique et son effet sur l'apprentissage: Les sources de l'anxiété perçues par l'étudiant

Bien que le visionnement d'enregistrements magnétoscopiques représente un outil d'apprentissage puissant, nombreux sont les professeurs de sciences infirmières qui se soucient des réactions d'anxiété qu'il suscite chez leurs étudiants. Dans le cadre de la présente étude, on a procédé à un test pilote d'un questionnaire conçu pour mesurer l'anxiété signalée par le sujet chez 65 étudiants en sciences infirmières inscrits en deuxième, troisième et quatrième année du baccalauréat; les évaluations ont été faites avant, pendant et après l'enregistrement magnétoscopique. L'anxiété signalée par les sujets atteignait son paroxysme juste avant la séance d'enregistrement, mais diminuait de manière spectaculaire tout au long de l'expérience. Une anxiété même modérée ou importante ne semblait pas gêner l'apprentissage. Le malaise causé par l'idée de se voir confronter à soi-même en regardant l'enregistrement magnétoscopique et le manque de confiance en soi de l'étudiant étaient les indices les plus sûrs de l'anxiété juste avant l'enregistrement magnétoscopique. Ces observations semblent indiquer qu'il faudrait planifier soigneusement les exercices d'enregistrement magnétoscopique et l'attitude des professeurs face aux étudiants avant l'enregistrement. Des études plus poussées sont requises si l'on veut déterminer les démarches les plus efficaces et dépister les étudiants qui ont besoin d'une intervention additionnelle pour profiter du visionnement de l'enregistrement magnétoscopique.