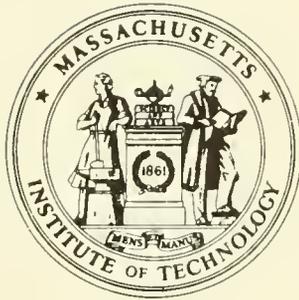


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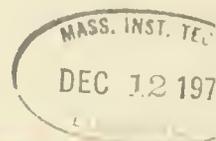
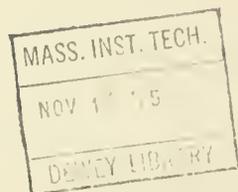
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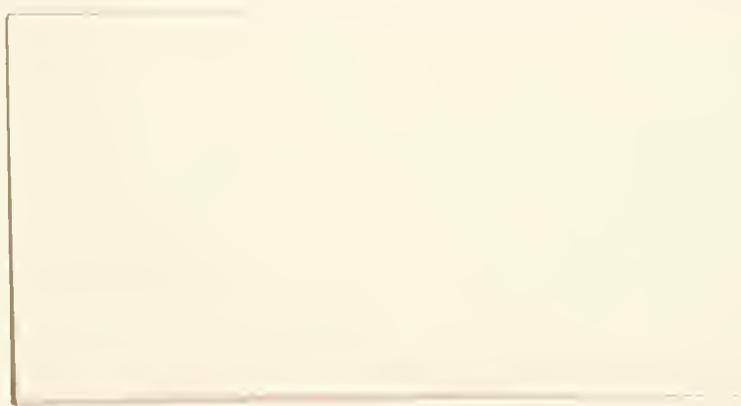
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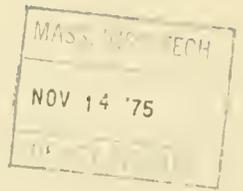
Nina Rosoff

September, 1975

WP #807-75

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EDUCATIONAL INTERVENTION STRATEGIES IN  
NEW HEALTH PROFESSIONALS TRAINING PROGRAMS

by

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## Synopsis

In attempting to minimize the gap in the utilization of Physician Assistants and Nurse Practitioners in early assignments, we defined specific problem areas related to what the student learns in each program, and how he or she is utilized in early assignments. We then designed educational interventions based on experience in the behavioral sciences in an attempt to affect these problems. We were interested in the following: (1) what specific educational pedagogy and methodology programs could be designed to ameliorate some of these obstacles: (a) what the appropriate timing was in order to make relevant interventions in their present curriculum and total program, and (b) what behavioral content should be offered; and (2) how it should be introduced and implemented.

A total of six interventions -- three each in Physician Assistant and Nurse Practitioner training programs -- were implemented at two universities. While each intervention was designed to meet the specific needs of the training programs and students in each setting, our overall focus was to develop among the training program administrators, faculty, and students an attitude of inquiry toward and an appreciation for the



importance of learning the processes necessary to manage social and "people" problems in the delivery of health care in conjunction with the traditional emphasis on clinical training.

This report includes: (1) a description of the intervention settings and the conceptual bases of the intervention strategies; (2) a discussion of the content and process of each intervention and their implications for improving future interventions; and (3) a summation of the major learnings gained, recommendations based on these learnings, and future directions in facilitating the utilization of new health professionals.

### Introduction

This case study reports an attempt at identifying and resolving problems in the delivery of health care on the part of the new health professionals, the Physician Assistant (P.A.) and Nurse Practitioner (N.P.). Although their actual numbers and time in work settings has been limited to date, evaluation of the P.A.s and N.P.s indicates that they are either "underutilized" or "overutilized" during their early assignments, and that physicians alone are not to be blamed. Our task was two fold: (1) defining why a "gap" exists between the training and skills a P.A. or N.P. acquires and his/her ability to be fully and effectively utilized once employed; and (2) determining the most effective intervention strategy for bridging this "gap" based on our knowledge of



and experience in the field of behavioral sciences.

Obstacles to the better utilization of the P.A. were broadly defined as their employers, the administrative and faculty personnel in the training programs, the program structure and design itself, the student him/herself, and the social restrictions concomitant with restricted legalization and professionalization. The same obstacles were found relevant to the N.P., except for the social contingency. In diagnosing the "gap problem" in terms of possible interventions, three systems were selected as relevant: the students; the nature of the training programs, including the directors and faculty; and the employers of the new health professionals -- physicians, directors of clinics, hospital administrators, corporations, etc.

We decided to begin our intervention by working directly with administrators of P.A. and N.P. training programs, seeking their interest and support. In addition, we chose to work with the students themselves. The decision for selecting the students and their training programs first, as opposed to the employers and physicians, was based on a number of criteria. First, we felt we needed more information regarding the type of people we were dealing with -- their personal goals, objectives, needs, and so forth. Second, it would be easier to locate the P.A. and N.P. in one place (their training programs) versus seeking them out across the country. Third, we felt that by being able to work directly with the student while still in a learning environment, he/she would probably be more open to learning about his/her role than when he/she



was actually practicing and the demands of the work setting were more critical. Finally, we felt that after we had a better fix on the nature of the programs and the students' learning needs, we would be able to work more effectively with physicians and others who utilize the new health professionals.

Our primary goal was to establish the "whys" and "in what ways" behavioral science knowledge can be effectively integrated into the educational training programs of these two new health professionals in order to contribute to their effective utilization in practice. Keep in mind, too, that a complementary goal was for us to learn how to educate and train the program faculty so that they would be capable of integrating and adapting our intervention materials in appropriate ways to their particular program and students needs without our help. A secondary goal was to enhance the P.A.s' and N.P.s' ability to socialize and resocialize, respectively, their new roles in their first job assignments as expediently and effectively as possible following their training.

### Background

This section is intended to provide a framework for understanding the intervention strategies detailed in the following section. It includes a description of the training programs, the program administrators, and the student populations, and delineates the conceptual bases for the intervention strategies.



## The Setting

The interventions detailed in the next section were implemented at two universities (X and Y), each of which contained separate training programs for P.A.s and N.P.s. Determining the specific content (information and skills) we were to provide was dependent on the nature of the programs, as well as the directors' role and involvement, and the student populations.

The Training Programs. The P.A. programs at University X and University Y were quite similar in both content and structure. Both programs were two years in duration, with the first year spent in the classroom and the second year spent simultaneously in a variety of preceptorships (in-the-field training) under the supervision of physicians and in the classroom. During the course of the program students are taught to perform a variety of functions traditionally performed by licensed physicians, such as eliciting patient histories, performing routine diagnostic procedures, giving injections. Classroom work was primarily didactic in nature, including physiology, microbiology, patient interviewing, human anatomy, and so forth. Clearly, then, the primary emphasis was upon clinical training oriented to the physical sciences, with limited inclusion of applied behavioral science knowledge and training.

While the N.P. programs at University X and University Y were both oriented toward extending nursing skills and expanding areas of expertise (thereby allowing for provision of care independent of a physician),



the two programs were quite dissimilar in their means to reaching this objective. At University X the program was designed specifically for training Pediatric N.P.s. Students in the program remained in their nursing positions while participating in the 3-month N.P. training program and used their on-going jobs as the experiential setting for applying their classroom learnings under the supervision of a faculty member (preceptor) of the N.P. program. In contrast, participants in the N.P. program at University Y were full-time students engaged in a year-long program. The first nine months were spent in the classroom receiving clinical training, and the last three months were spent in a variety of in-the-field training settings under the supervision of a preceptor, who was a trained N.P.

The Program Administrators. The director of the P.A. program at University X was a trained social worker. She was directly and closely involved in both the administrative and teaching aspects of the program, and maintained a highly controlling and visible position with respect to both students and faculty. The director of the P.A. program at University Y was himself a trained P.A., as were two of the faculty members. While the director remained accessible and available to both the staff and students, he did not maintain as high a degree of control as the director at University X.

The director of the N.P. program at University X was a trained nurse who had become a nurse practitioner. She relied on her administrator and faculty to work directly with the students, and therefore was less closely



involved in the program. The director of the N.P. program at University Y was quite active in both the structuring and content of the program and has viewed her major commitment of the last three years as the continued improvement and expansion of the scope of the program.

Student Populations. The P.A. students were on the whole a socially-minded population -- interested in the delivery of health care and espousing much idealism and altruism -- young, somewhat counterdependent toward authority, with a rather immature and low sense of esteem and varying degrees of commitment to and clarity regarding career choice. Many experienced identity ambivalence: they wanted to be like physicians and they didn't want to be like physicians. The physician's capacity to do "good" met their altruistic ideals for service, but they were not interested in the physician's status, intellectualism, or money. In terms of the roles they were training for, these students could be characterized as pioneers in a new profession, coping with the ambiguity of an ill-defined function in the health care system, no legalization, and limited professionalism accorded their position as physician assistant.

In contrast, the N.P. students -- although also young, immature, and of low esteem -- were more dependent in behavior and had a stronger and more focused sense of their career direction. They also had a strong desire to move out of the dependent role for which they had been trained as nurses and toward a more independent role which encompassed new skills, broader job responsibility, and higher status.



## Conceptual Bases for Intervention Strategies

In attempting to understand and conceptualize the process whereby a student becomes a P.A. or N.P. as a basis for designing our intervention strategies, we developed what we call the "life span" of a new health professional in training, which is divided into five developmental phases:

1. The decision to enter a training program: this essentially means giving up one's present identity for a new, and essentially unknown, future identity.
2. Entry into the training program: at this point the individual is not only confronted with taking on the 'temporary' identity of student and learning to manage a new system of resources, norms and relationships, but is also in the midst of clarifying a future identity as P.A. or N.P.
3. Entry into simulated clinical relationship (preceptorship): at this point the issue of greatest significance to the student is the testing of his/her competence -- his/her ability to fulfill a still incompletely defined future identity.
4. Leaving the training program: at this point the student not only has to deal with separation from one system -- the training program -- but must begin considering entry into a new system -- professional health care service -- and how and where he/she will fit in.
5. Entry into professional health care service: here, the P.A. or N.P. is confronted with both proving his/her new identity and with educating others about that identity.

On the basis of this conceptual framework we developed three different packages -- "beginning", "middle", and "end" -- to deal with the major issues the students confronted while in training -- phases 2, 3 and 4, respectively (see Appendix 1).

We also viewed these developmental phases as a continuous process, that is, one which constantly repeats itself once the P.A. or N.P. leaves



the training program. Therefore in presenting the conceptual framework of the life span to the students, we encouraged them to view their process through the training program and involvement in our program as a simulation of some of the social and behavioral problems they might confront after leaving the training program: for example, entering and utilizing new resources in a new job; gaining respect for competence and expertise through the practice of technical skills and the successful negotiation of a viable work contract with a physician or director or nurses; and finally, issues of separation confronted in leaving an initial job assignment for a new one.

Furthermore, two factors led us to develop separate sets of packages for the P.A. and N.P. training programs. The first was the fact that, while the phases of the life span were similar for both the P.A. and N.P., the process of acquiring each role was quite different. The P.A. is a new role which requires socialization. Socialization refers to the process by which a person learns the functions, values, norms, and required behaviors of a new role. In contrast, the N.P. is an expansion of a previous role (nurse) to include a different scope of goals, activities, and functions and therefore involves resocialization. While resocialization is necessarily based on the socialization process, it emphasizes the acquisition of additional knowledge and skills to function in an expansion of a previous role.

This difference per se influenced the content, structure, and strategy of interventions into the two types of programs. However, both the



socialization and resocialization processes require the P.A. and N.P. to confront on an individual basis what his/her role in fact is. In addition, both processes require the P.A. and N.P. to educate others to their roles -- through sharing information about the role and behaving in ways which communicate what the role is and how the individual functions in it with others -- in order to be effectively and appropriately utilized.

The second factor influencing our development of two distinct sets of packages was based on our observations of the 'type' of person who entered the P.A. program versus those entering the N.P. program. A critical factor was the relationship of the role of N.P. or P.A. to the stage of emotional development of the students. We hypothesized that in keeping with Harvey, Hunt and Schroeder's (19 ) model of emotional growth and development progressing through four phases -- dependence, counterdependence, independence, and interdependence -- the P.A. and the N.P. are each entering their respective programs at a different phase of emotional growth. The P.A. is more likely to be counterdependent and the N.P. more dependent in behavior exhibited in training. Clearly, a number of factors affect this, some of which we were able to identify. For example, the N.P. is usually in a pre-established dependent role (nurse), and as a woman has been socialized to be dependent. Whereas the P.A. is more likely to be male, a role socialized more toward independence, and often enters training wanting to "rebel" against being a doctor, having failed to get accepted at medical school, etc. This conceptual model was used to further clarify



the emotional experience of the P.A. and N.P. in relation to behaviors facilitating or hindering the transition into their new roles in initial job assignments.

In summary, the four key conceptual factors influencing our design of intervention strategies for facilitating the effective utilization of new health professionals were: (1) the five developmental phases of the life span of new health professionals in training; (2) treatment of the training programs as simulations of the "real world" problems which the students will confront in initial job assignments; (3) the processes of socialization and resocialization of the role of P.A. and N.P.; and (4) the emotional growth and development of the students in relation to career choice and role acceptance.

### Intervention Strategies and Their Implications

The material presented in this section follows the actual sequence of interventions in the P.A. and N.P. programs at Universities X and Y. This sequencing was for the most part determined by the timing of our contact with the program administrators; as a result, in both the P.A. and N.P. programs we began by implementing an "end" package at University X, followed by a "beginning" package at the same university, and then moved to University Y to implement a "middle" package.

The sequencing of the material in this section is also intended to illustrate the process whereby we learned how to effectively intervene in the training programs. Therefore, the emphasis will be upon: (1) the



core content presented in each package and its relation to the corresponding phase in the "life span" of the students; (2) the process of the intervention; (3) the response of the students to both the content and process; and (4) the implications for designing and implementing future interventions.

### Interventions in Physician Assistant Programs

Our initial intervention was with the "end" package, which was presented during the last six weeks of the two-year P.A. program at University X. During this time, the major issue of concern to the students was separation from their training program, which can be conceptualized in four stages: (1) beginning separation from the present environment, (2) search, (3) acquisition of a new environment, and (4) adjustment. We hypothesized that these four stages of terminating one situation and joining a new one are replicated no matter how few or how many times one goes through them. Of course this process can be refined -- by adding understanding and skills, taking away unnecessary parts, and developing new ones -- but the process is consistently similar and replicable. If this is so, the more experience an individual has learning to manage this process, the more effectively and appropriately utilized he/she will be in the new environment.

To operationalize these concepts, we designed and presented the following core content in five sessions of four hours each: (1) resistance to change; (2) self-image -- identity, role relationships, and the negotiation of contracts; (3) mapping and diagnosing a system; (4) entry



into various work settings; and (5) influence and power. Each of these core content areas was specifically oriented to the central issues of the "ending" phase in the life span of the student. For example, in order to help the students view themselves in relation to any setting they might enter -- whether community clinic, hospital, group practice, private practice, or other -- we introduced material on mapping and entering systems. This was specifically oriented toward helping the students manage their role within the confines of a system ill-prepared in knowing how to effectively utilize the P.A.'s training and capabilities. This content area was also considered significant in that the students would soon be graduating, and although they had experienced entry into systems of a similar nature, they had rarely done so without a clear role definition.

The process of the intervention was complicated by the program director's skepticism about the utility of the material to be presented, which was communicated immediately to the students in a "take it or leave it" introduction of the intervention staff. Also to our disadvantage was the fact that while our program was introduced as a required course for the students, they were to receive no credit for it. This served to enhance the students' resistance to the "type" of material we were presenting: their initial response was, in essence, our common sense tells us who we are and how to work with people; what do we need this extra course for?

Despite this initial resistance, the response of the students in



class and on post-intervention questionnaires indicated that the content was both interesting and useful, especially those sections on identity, role, problem-solving, interpersonal relations, and mapping a system.

Their comments included:

I really feel stronger as an individual (and hopefully as an employee) as a result of these sessions.

I never understood how important it is to identify roles and expectations. Once you realize you're not in competition with the doctor, there are a whole range of possibilities within the boundaries of your own role.

I feel for the first time that I can do something for myself to make my job more satisfying to me and that is a legitimate goal. I'll probably do a better job, too.

Student response also provided us with suggestions for designing and implementing the next intervention. These included: giving the program earlier in the two-year training program; focusing in on problems of role relationships with other staff; integrating the program into the regular curriculum; and continuing to keep it practical in focus.

Our own analysis indicated that there were several disadvantages in the timing of a single intervention at the end of the program. First, we had established no previous relationship with the students. Second, the students did not know each other well enough to feel secure enough on a personal basis to be as interpersonally open as it would have been helpful to be. And third, at this point in the program the students were preparing to "close shop" and had some resistance to uncovering more areas they knew nothing about and felt they should.

On the basis of the students' positive responses to the "end"



program, the director at University X asked that a "beginning" program be designed for presentation to an incoming class of P.A.'s as part of a seminar series. While incorporating the suggestions of previous students, the "beginning" package focused on entry into the training program as a simulation of the P.A.'s future entry into a work environment. The emphasis was upon encouraging the P.A. to search out his/her present learning environment, discover which resources existed that would help him/her reach his/her goals, negotiate an effective learning environment for him/herself, and learn more about working well with his/her peers versus adherence to strict authority-dependent relationships.

Initially, six core content areas were designed to meet this objective; however, the director requested that the sessions be decreased to three and also requested alterations in the content in the midst of the program. The final design included three three-hour seminars: (1) self-image -- identity and role negotiations; (2) managing and entering group dynamics and influencing work settings; and (3) problem-solving. The intervention staff was apprehensive about the timeliness and relevance of the second session, and these doubts were confirmed by the students' negative reactions which carried over into the third session and responses on the post-intervention questionnaire.

Once again the director's attitude played a significant role in reinforcing the students' resistance. Although she had requested that we return with a "beginning" package, her introduction of the seminars to the students communicated a continued ambivalence concerning the



relevance of the material to be presented. She also sat in on all the sessions with an air of critical judgment and without making public any positive support for our presentation.

Our experience at University X re-emphasized for us the critical nature of the timeliness of the presentation of core content areas in relation to the developmental phase the students were progressing through. It also made us aware of the critical influence of the program's director and faculty on the students' acceptance of our material. We also gained a better understanding of the 'natural' resistance we encountered in attempting to work issues of identity and role clarification and negotiation with the P.A.s. We consider this resistance 'natural' because it is an outgrowth of the individual becoming socialized to a new role which at that time (and now) contained a number of factors which were ambiguous and therefore caused the students a great deal of stress. These elements included the following: (1) the lack of a successful role model for the P.A.; (2) the students' ambivalent identification with the physician as a substitute role model; (3) the student's stage of emotional development in which counterdependence is his/her way of expressing resistance by saying, "I don't know who I am, and I'm dependent upon you to tell me, but don't, because I have something to offer"; and finally (5) the minimal acceptance and understanding of the role of P.A. by physicians and the community as a whole.

On the basis of this understanding, we reoriented both the content and process of our intervention strategy so as to turn the students'



natural resistance into productive energy toward clarification of the skills, function and role of the P.A. We also developed a case study, the Phyllis Atkins Case (Appendix II), exemplifying some of the critical issues the P.A. would face in his/her initial assignment. The case was intended to be a teaching tool whereby the students would be given a concrete, experiential introduction to the core content material to be addressed by our program.

The case and an outline of our entire program -- beginning, middle, and end -- were presented to the program director and faculty of the P.A. program at University Y. Their response was enthusiastic and it was agreed that a "middle" program would be integrated into a course in human behavior prior to the students' preceptorships. It was also agreed that the course faculty would act as support personnel to the intervention staff. These sessions of three hours each were designed by the faculty and intervention staff, in which the following material was presented: (1) identity, self-image, and feedback; (2) role relationships and negotiating effective precepting relationships; and (3) conflict resolution and problem-solving.

These areas were selected from the total "middle" package because we felt they were the most critical to the P.A.'s training prior to entering the precepting relationship. The middle stage of the training program is where the P.A. is, for the first time, confronted with learning to work with the physician and in a sense "test his/her wings". The significant issues for the P.A. in this learning process are clarifying



his/her role, establishing a mutually satisfactory relationship with the physician, and managing the conflicts and problems which might arise in educating the physician about his/her role and effective utilization as a P.A. If the student manages this situation 'well', this obviously builds confidence for the initial work assignment and will help to increase appropriate utilization of him/her. If it is managed poorly, the student has an opportunity to learn from the situation before entering his/her initial job assignment.

Although resistance was again initially evident among the students, the intervention staff's straight-forward confrontation of these resistances and the problems the students would confront as P.A.s, the practical and concrete presentation of the core material, and the faculty's support of both the process and content of the presentation served to open the students up to new learnings. The result was a highly successful learning experience for all involved. Students' responses are exemplified by the following comments drawn from the post-intervention questionnaire:

It gave us a picture of the real problems we will have to deal with.

The course was fun and very interesting and you made us feel like we were learning from each other better.

I liked the theory and found it helped me understand why I was going through such anxiety and stress.

I liked working in the small groups after each theory session because it helped me get to know people better. It was stressful, but it felt more real.



Of all three programs, the one at University Y was received most enthusiastically by the program director, faculty and students. As a result, the faculty sought further training from us on the content and presentation of a complete "middle" package and are now looking toward utilizing the "beginning" and "end" material in their curriculum as well.

### Interventions in Nurse Practitioner Programs

As in the P.A. program, our initial intervention into the N.P. program at University Y was with the "end" package. In line with the "life phase" of the students, the program was designed to focus on two critical factors for the N.P. in terms of her effective and appropriate utilization in her new role: (1) identity and role resocialization; and (2) management of the nurse practitioner role. These two issues were operationalized in a two-day off-site workshop designed in conjunction with the director and faculty, and co-staffed by the faculty and Intervention staff. The core content areas included: (1) giving and receiving help; (2) roles -- how they are delineated; (3) planned change; and (4) women as nurse practitioners.

Again, these content areas were presented so as to be most appropriate to the practical problems and issues the N.P.s would soon be facing in their new environments. For example, the topic concerned with roles was selected based on the assumption that, while the role of N.P. was more clearly defined and better understood, it was important for the students to learn how to set up and define new expectations and responsibilities with those who might still tend to see them as nurses.



As a whole, the students appeared to learn a great deal from the content of the program; the data from the questionnaire administered at the end of the program substantiates this. They also offered several suggestions for improving the program. One was that the discussion of the role of women should come earlier in the workshop. We had delayed the presentation of this topic because the women as a whole seemed very negative about it, symbolized by their denial of its relevance, denial of any difficulty in working with other women, overt dependence on the one male staff member, and avoidance of the female staff member who was not in a "traditional role". Once the material was presented the students said they found it most useful. They reported having been afraid it was going to represent a "woman libber's viewpoint", or would "put them down as women in the nursing profession". When it did neither, and in fact helped them understand their situation better, they reported finding it very relevant.

The students also indicated that the workshop should be presented earlier in their training program. In line with this, the faculty and intervention staff felt that the "end" program became a time for the students to register complaints and air gripes about what they did not like about their training program. This was another reason to present the material earlier in the program, so it would not be lost in the students' complaints.

The students responded positively to the practical nature of the material presented and the chance to work in small discussion groups



with their preceptors, and wanted this continued. Also, we observed that it would be more fruitful if each precepting faculty had begun to work with her group of students prior to the workshop. Finally, the students felt that staying overnight for one night would be logistically better.

Hence, the "beginning" program was given in a one and one-half day off-site workshop after precepting faculty had met with their groups approximately three times. Also in response to faculty and student interests and reactions to the other session, the core content was altered to reflect their suggestions and was presented in the following sequence: (1) the role of women in work; (2) goal-setting and creating change; (3) contract-setting; and (4) problem-solving. The focus was also reoriented toward issues of entry into the training program as a simulation of future entry into a work environment as an N.P.

Although there were a few dissenters to the program itself, as a whole it met with much less resistance than the "end" program and was felt to be very valuable. The N.P. director wanted to continue the presentation of the material of our program as an off-site workshop; however, we decided to test the material in another location in order to teach it as a curriculum package.

Based on the experiences at University X, a teaching and research tool was designed, the Nancy Procter Case (Appendix III), and introduced to the director and faculty of the N.P. program at University Y. They liked the case as a teaching tool and were enthusiastic about the



behavioral science orientation as a means of further enhancing the scope of their program. They agreed to incorporate and participate in a "middle" package of four three-hour sessions, which were to be presented prior to the students' in-field training. The material presented was as follows: (1) identity, role set, and analysis of the case; (2) role set, perception, role negotiations, feedback, and the resocialization of the nurse practitioner; (3) female-male issues, conflict resolution, authority, and planning for change; and (4) issues related to entry, separation, and re-entry.

The focus of these four sessions was upon providing the student with further knowledge and skills in learning to get the most from her preceptorship. The case served as a reference point to which all the students could relate as they progressed through the four sessions. It was readministered at the end of the program to see if the content given to the students would make them view the case differently. The results were dramatically positive in the differences in analysis, demonstrating the acceptance of the new material. The case will be readministered again three to six months after each N.P. is in her initial job assignment.

At the conclusion of the "middle" program the director, faculty and students elected to continue to meet together weekly to discuss the problems and issues of their precepting relationships as a means of continuing to utilize the material presented in the four sessions.

Each of the three N.P. packages -- beginning, middle, and end --



met with positive support from administrators, faculty and students, and it is felt that the intervention strategy in each system was appropriate to that setting's needs.

A significant aspect in all three N.P. programs was faculty involvement in the intervention. As a result of their participation, the faculty and administrators became more concerned with the behavioral learnings of the students. They developed an increased acceptance of the behavioral model for learning in conjunction with the heavy emphasis on clinical training, and the non-clinical concepts of learning, experimentation, management, etc. are now becoming an integral part of their training programs.

The N.P. program at University X has continued dealing with issues concerning student-preceptor relationships and is again planning to incorporate the workshop into their training program. In addition, at this time University Y is integrating a complete program -- beginning, middle, and end -- into their curriculum, which will be administered and taught by the training program faculty.

### Summary, Recommendations, and Future Directions

This section includes a summary of the major learnings delineated from the interventions , followed by recommendations for designing and implementing similar interventions, and finally our future goals in working with new health professionals.



### Summary of Major Learnings

1. It is unrealistic to provide the P.A. and N.P. with clinical and technical skills alone without providing adequate knowledge and skills to manage the difficult processes of socialization and resocialization.
2. There are three critical points in training programs for both P.A.s and N.P.s, which correspond to three phases of intervention: entry into the training program; entry into a simulated clinical relationship; and separation from the training program. In addition, within each of these phases, there are systemic and personal issues which simulate issues confronted in initial work assignments, and from which the students can learn to be more effectively utilized in their initial assignments.
3. Providing students with an opportunity to develop interdependent relationships with their own peers helps them in learning to turn to one another for help, and provides them with a simulation of the type of support function they will be operating within as P.A. and N.P.
4. Providing material at the beginning of the program which helps the students learn to utilize their own resources increases their ability to adapt to their new roles.
5. Utilizing cases of real experiences with which the students can identify lowers resistance toward social-behavioral material.
6. It is critical that the program administrator and faculty be in support of and encourage the use of this material.



7. Working with the program administrator and faculty on the material to be presented increases their involvement, commitment and understanding of its usefulness.

8. Including the faculty in the presentation of material facilitates acceptance of the material.

9. The faculty themselves need more group, social and behavioral skills in working with students.

10. The sooner the training program faculty can provide the material on their own, the more effective will be its integration into the regular curriculum.

11. Faculty need to take an active role in educating preceptors about the function and role of the N.P. or P.A.

### Recommendations

This study illustrates the viability of a planned change education program and its value in the training of new health professions for roles which are ill-defined and minimally accepted in the health care system. The programs described provided a forum for three broad areas of learning: personal development, group experience and interpersonal skills, and socialization and resocialization of new roles.

The P.A. and N.P. experience considerable uncertainty about themselves, their new roles, and their ability to enter a health care system. Therefore, developing their confidence, self-esteem, and assertiveness is crucial to their successful negotiation of the transition to new roles and functions, and to the full utilization of their skills.



Experience in a group context is critical for both the P.A. and N.P., as each will be working with a team of health care professionals. Provision of such experiences will also allow students to develop support systems among themselves during training. The group context will also aid in the development of interpersonal skills essential to effectively negotiating the issues of power, status, control, and influence they will be continuously facing in their new roles.

Key to the relevance and effectiveness of these experiences is their integration into the clinical aspects of the programs as a developmental part of the training. This will provide students with some lead time to integrate and develop their skills in a protected learning situation before taking the plunge into the pressured environment of a health care delivery system where their role is not yet understood. In the classroom the students can become a support system for one another, and the class can serve as a group experience and laboratory for team building. They can begin to experiment with their new learning while they are in training and use both their class and clinical experiences as simulations of the situations they will be confronting in their initial work assignments. Special content on organizations and interpersonal skills can be tested and integrated into their experience during their clinical assignments. Another benefit from incorporating the change content into the training programs is reducing the resistance to piecemeal application. A more complete and timely integration will allow its organic relation to clinical training to develop logically and pragmatically.



In addition, integrating planned change content and activities into the training programs at an early date is critical to providing the N.P. and P.A. with the appropriate skills for managing the difficult process of resocialization and socialization. By beginning this process early in the training programs, the students have a better chance of coping effectively and managing the stresses they will encounter in their new roles.

In summary, the success of an intervention to facilitate the utilization of new health professionals depends upon the ability of the intervener to work effectively with the director and training faculty: (1) to design and implement a program that will increase the students' social and behavioral knowledge, learnings, and skills in conjunction with their clinical training; (2) to work with the P.A. and N.P. specifically on their ability to deliver health care effectively within the context of their support role to other health care professionals; and (3) to utilize their educational and field work settings as a laboratory for simulating the problems the students may be confronted with in their work environment as a means of increasing their confidence, clarifying their roles, and learning to manage conflict.

It is relevant to work with as many elements of the program as possible which significantly affect the students' development. It is important to make each intervention timely to the personal and social needs of the students in careful conjunction with the fixed training program in order to obtain maximum commitment and learning. And finally,



it is crucial that students be educated to the value of such a program in helping them to be more effective and efficient in the delivery of health care.

### Future Directions

Clearly, educators, administrators, and employers who work with P.A.s and N.P.s will need additional training of this type as well. We need to think further about whether (and in what ways) the constriction arising from the presently designed support bases in programs such as these hamper the maximal development of health care practitioners as resources to the successful delivery of care. What more interventions need to be developed, what problems they ought to be designed to ameliorate, and what content is relevant are all questions we are continuing to seek answers to. Some of our future goals include:

1. To prepare educators of new health practitioners to teach behavioral skills, to be aware of the problems of professional identity, to provide support and direction, and to accept the responsibility for being a linkage between training and initial assignment.

2. To educate preceptors and employers to be more aware of the students' knowledge and skills, to actively 'negotiate' the boundaries of their relationships with the P.A. and N.P., and to continue to provide constructive guidance and opportunities for growth and utilization of their training and skills.

3. To research and evaluate these programs, attempting to determine whether or not this approach leads to a better transition of the student into and utilization within the work setting.



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