

The Family-Oriented Clinical Simulation: An Interdisciplinary Tool for Professional Growth

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ABSTRACT: An interdisciplinary, educational technique—the family-oriented clinical simulation—is described and compared and contrasted to other commonly used role-playing techniques. Implications for training and supervision of physical therapists and other health care professionals are discussed, including the technique's relevance as a vehicle for studying in an applied clinical context the interface of physical disease and its psychosocial manifestations. The article concludes with a description of the benefits and potential disadvantages of the technique.

Various forms of role-playing (eg, psychodrama, behavioral rehearsal) have long been used for a variety of psychotherapeutic objectives.¹⁻³ Increasingly, these techniques

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have been adapted to other professional settings.⁴ This article describes a new permutation of the traditional role-playing format—the family-oriented clinical simulation—an interdisciplinary technique combining clinical insights drawn from a health care discipline (physical therapy) and a social science (psychology). While incorporating some of the ideas of the psychotherapeutic role-play, the technique is designed as a tool for professional rather than personal growth.

HISTORICAL BACKGROUND

The concept of the clinical simulation developed as an offshoot of a training grant entitled Family Focus under the direction of the Division of Physical Therapy at Stanford University School of Medicine.⁵ Family Focus was a cottage-like transitional care unit associated with Stanford University Hospital where patients and their families stayed for the last three days of the patient's hospitalization.

Physical therapy students, who rotated through the unit, had the opportunity to work closely with the families. Their goal in the unit was to transfer their care-taking skills and responsibilities to the patient and family during this three-day period.⁶ In the process, the students learned new skills: observing behavioral interactions of family members, identifying cultural considerations regarding illness, and implementing educational and behavioral techniques in training family members and patients in the care of the patient outside the hospital. Students and staff in the unit soon developed an expanded concept of the role of the physical therapist. The therapist no longer only treated the patient's extremities but was instead involved in a kaleidoscope of concerns regarding the patient's welfare in his or her home and the family's role and reactions to the patient.

A clinical physical therapist instructor and a psychologist constituted the Family Focus staff. Their role was to support students and to facilitate student awareness of the behavioral interactions of the family member, the psychological needs of the patient and the family, and the physical limitations of the patient. As it was sometimes difficult for various reasons to recruit patients and their families to Family Focus, the psychologist and clinical instructor realized that a viable alternative to real families was to incorporate simulated families as part of the training experience.

DESCRIPTION OF A FAMILY-ORIENTED CLINICAL SIMULATION (FOCS)

The simulation model discussed in this article developed as a direct outgrowth from patient experiences as observed in the Family Focus unit. In a model simulated experience, the clinical instructor played the role of patient and the psychologist took the role of family member or significant other. Each role-play session lasted about one hour, which was found to be an adequate amount of time to develop themes, allow for involvement, and yet avoid redundancy. Physical therapy students treating the simulated patient and family worked in pairs, which had the

advantage of reducing students' anxiety and allowing them to share knowledge, tasks, and feelings.

Each complete simulation (which consisted of two role-play sessions) could be developed according to two different models. Model I varied the family structure but maintained the same disability.⁷ For example, during the first session, the focus might be on a stroke patient with a large, supportive family. The second session might look at the same stroke victim, but whose family consisted of a single daughter-in-law, herself burdened by many physical, emotional, and financial problems. Afterwards, questions such as how variations in age, cultural background, and family structures related to the impact of the disability were discussed.

Model II maintained the same family structure but examined patient and family coping methods with two different disabilities. For example, in session 1 the patient might simulate an extremely disabling stroke, so that the family would be confronted with a long-term management situation. In session 2 the same patient in the same family structure might be dying of cancer, so that an imminent resolution would present itself. Again, various questions were raised: How did this change in diagnosis alter the physical therapy goals for the patient? Did the family respond differently to the dying patient than to the aphasic patient who would require considerable care indefinitely?

The clinical instructor and psychologist, playing patient and family member respectively, could mold the role-play to the degree of complexity desired depending on the students' level of psychological and professional sophistication. Either physical therapy skills or psychological aspects of the situation or both could be manipulated quickly and spontaneously. Thus, there was considerable freedom to adjust the clinical simulation to the needs of individual students.

Physical therapy students were instructed to establish certain PT goals for each role-play session. Did they want to teach the patient a transfer from wheelchair to car? Did they want to initiate the use of a walker? However, these traditional PT objectives now had to be

accomplished within a family context. Thus, the students were also instructed to pay attention to patient and family feelings about the current health crisis, their styles of interaction with each other, and the strengths and weaknesses of the family unit, all as means of identifying resources to successfully accomplish their PT tasks.^{8,9}

In the simulation experience, an important process was the discussion period immediately following the role-play. The clinical instructor and psychologist then resumed their true identities, and students and staff shared impressions, perceptions, and feedback. As the clinical instructor and psychologist had experienced an insider's view of the situation, they were able to give valuable suggestions and input to aid the students in discovering various aspects of patient-family therapy.

A final aspect of the clinical simulation was the use of videotaping. This provided students an opportunity to observe their own behavior and form generalizations or conclusions from this observation. The use of videotape quickly became a required rather than an optional method of feedback. It provided several advantages which complemented the verbal discussions described above. First, it allowed students to observe their own behavior rather than rely exclusively on the opinions of others. Second, it provided a grounding for the impressions of the observers. Third, it eliminated pure reliance on memory and allowed discussion to be conducted in terms of specifics rather than generalities.

The following is an example of a Model I clinical simulation:

Session 1—The patient is a 25-year-old male, three weeks after a right above-knee traumatic amputation resulting from a motorcycle accident. He has been a "problem" patient in the hospital as he is depressed and angry and continually refuses physical therapy treatment. The physician insists he come to Family Focus to receive some home training. He will be staying in the unit with his 23-year-old girlfriend whom he had been living with previously.

In the simulation, much sexual tension between patient and girlfriend is demon-

strated. The patient maintains a macho, chauvinistic demeanor while his girlfriend obviously feels guilty for his accident and is also afraid to touch his amputated stump. The physical therapy students must quickly decide their treatment goals and begin to transfer their skills to this patient and his girlfriend while simultaneously being confronted with the psychological aspects of the situation.

Session 2—The patient is a 53-year-old black female who is now six weeks post left below-knee amputation due to gangrene of the left foot. The patient has a long history of diabetes mellitus and peripheral vascular disease. The other foot is also experiencing vascular deficiency and there is a strong likelihood of an eventual second amputation. There are various other medical complications associated with the disability. The patient has respiratory difficulties and possible kidney problems secondary to the diabetes. She has a low endurance and is unmotivated to take responsibility for herself or her family. Her husband is staying with her in Family Focus while her two teenage sons are home with an aunt. The husband has many concerns regarding his necessary role change within the household due to his wife's newly acquired disability. He is frightened about the possibility of a second amputation or possible death of his wife. The patient herself is experiencing phantom pain which she rationalizes as an evil spirit pursuing her lost limb. She is discouraged by the difficulties of a lengthy recovery. The students have to function as active listeners to both the patient and husband but at the same time also need to pursue the physical therapy tasks necessary for the husband to care most effectively for his wife at home.

CHARACTERISTICS OF THE FAMILY-ORIENTED CLINICAL SIMULATION

Although initially the clinical simulation may appear to approximate a role-play situation, there are several important distinctions. (For a summary of similarities and differences, see Table I.) First, as its name suggests, the FOCS is a family-oriented

TABLE I

CLINICAL SIMULATION AND ROLE-PLAY: SIMILARITIES AND DIFFERENCES

Clinical Simulation	Role-Play
<p>Similarities</p> <ol style="list-style-type: none"> 1. Both replicate some aspect of real life 2. Both provide a safe environment in which to experiment with new behaviors 3. Both emphasize the relationship between the individual and the environment 	
<p>Differences</p>	
<ol style="list-style-type: none"> 1. Oriented toward acquisition of skills in a professional context 2. Emphasis on synthesizing the skills of various disciplines 3. Specific intent to demonstrate relationship between individual, family environment, and disease entity 4. Goal: feedback and analysis 5. Creates family context 	<ol style="list-style-type: none"> 1. Oriented toward acquisition of skills to be used in an interpersonal context 2. Emphasis on skills of one discipline 3. Illustration of interaction of these three factors is serendipitous 4. Goal: changing client's behavior 5. Generally one-on-one

technique. To some extent, any role-play situation is designed to emphasize the relationship between the individual and his or her environmental context. However, each family-oriented simulation is specifically constructed around the interplay between a particular family and disability and intends to demonstrate for the student the interaction between family structure, family process, and disease.^{10,11}

Further, the clinical simulation is designed not only to point out interaction effects between family and disease, but also to demonstrate some of the complexities of family process. Thus, in contrast to many role-play situations, the emphasis is not on one-to-one interaction but on the student interacting with a group of related persons.

Second, the FOCS has an interdisciplinary emphasis, in that the insights and perspectives of two complementary disciplines are incorporated in the planning and the discussion phases. The resultant simulation is a product of the integration of the two disciplines—in this case, physical therapy and psychology. Thus, it is broader than a traditional role-play situation, which deals

only with the psychological and emotional factors in a situation. It is also broader than a standard "simulation" of physical therapy tasks in that it incorporates the psychosocial aspects of treatment.

Finally, the family-oriented clinical simulation emphasizes the development of skills to be used in a professional setting. Of course, the experience of a clinical simulation encourages personal growth and increased insight on the part of the participants, but it is growth and insight in the service of increased therapeutic effectiveness.

Thus, the emphasis in this situation is on professional rather than personal goals. The student is taught to make a distinction between personal values and the professional goals held for the patient. For example, it is pointed out that in a social setting, the behavior of another may provoke a certain emotional reaction in the student. In a psychotherapeutic role-play situation, the student would be encouraged to verbally express this reaction. However, in the context of the clinical simulation, stress is placed not necessarily on simple expression of feelings, but on how different student

behaviors will affect the patient and family's welfare.

Unlike behavioral rehearsal, in which successive approximation brings the client closer and closer to a previously identified goal,¹² in the clinical simulation there is not necessarily a goal of changing the student's behavior. Unlike behavioral rehearsal, no graded hierarchy of behaviors exists along which to proceed. Instead, the initial purpose is primarily feedback and analysis; thus, the instrument is diagnostic in emphasis. Through the clinical simulation the student receives a practical illustration: first, of how disease and family process are related; and second, of how his or her behavior may affect the overall dynamics of the situation. The feedback process which occurs with the clinical psychologist and clinical instructor helps the student to realize how different behavior choices may elicit different results in a patient and family. During the feedback process student and staff explore together how the student may best realize his or her professional goals.

DISADVANTAGES*

Of course, the family-oriented clinical simulation suffered from several disadvantages in this initial experimental phase. In comparing the simulated patient experience to the direct patient experience as observed in the Family Focus unit, definite problems developed in not working with real patients. Students found a certain period of adjustment time was needed to overcome the confusion generated by instructor and psychologist making the role change to patient and family. To make the simulation more believable, costumes (ie, patient dressed in nightgown) and the setting of an actual cottage greatly aided the credibility of the situation.

Also, when a family stayed in the unit over a three-day period, problems within the family setting or problems directly related to patient care were able to surface slowly. In a simulation, due to time limitations, many problems had to be quickly presented for the

students to deal with on the spot. Students often also expressed frustration at having to cope with an unreal situation. By concentrating on fewer complications, either psychological or physical, during the hour simulation, it was found that students could more effectively consider and treat the problems.

Another drawback related to the fact that it was precisely the successful transition which patient and family experienced in Family Focus which proved so rewarding and exciting for the physical therapy students to observe, especially as the students were able to recognize the role they had played in effecting this transition. Often much positive feedback from the family to the students occurred at this point. This positive transition was difficult to reproduce in the hour allotted for a simulation. However, there was always a conscious effort made by the clinical instructor and psychologist to show some positive change, whether through a patient's attitude toward his or her disability, or by a successful transfer of a skill to the family member. The positive change operated as a feedback mechanism directly related to the student's interventions with patient and family.

Perhaps the difficulties expressed by having too many problems and not enough successful experiences in an hour simulation could be somewhat alleviated by using the same family and disease entity over a period of three simulations. This would allow students to observe change and lessen the initial anxiety. Also, with each session the complexity of the simulation could be increased, as could the degree of risk-taking by the students.

A final disadvantage was the student's inability to make a home visit to the patient and family. In real life, this visit completed the transitional circuit: taking the patient and family out of the sterile hospital setting; working closely with them in a transitional care unit; seeing the patient integrated successfully into his or her original home setting, with patient and family having recaptured the idea of taking responsibility for their own wellness behavior.

ADVANTAGES

The benefits of the clinical simulation as a

*Discussion of both disadvantages and advantages of the FOCUS technique is based on PT student feedback and impressions and observations of staff.

training tool were many. A survey of 25 physical therapy students who participated in the FOCS indicated that 40% rated the experience as extremely valuable, 28% rated the experience as very valuable, and 32% rated the experience as valuable. Four students listed the clinical simulation as the single most valuable aspect of their Family Focus experience. Informal feedback during discussions with faculty and students indicated that the FOCS had much specific value as well. The FOCS technique provided an important and necessary complement to the theoretical training students had previously received. Without actually exposing the students to a clinical setting, it also provided an experiential component to their education. It appeared to be especially effective for intensive training in time-limited periods.

Further, the family-oriented clinical simulation gave students an excellent opportunity for problem solving. In the clinical simulation, students had little preparation for the information they were about to receive. Thus, in many ways the clinical simulation became an exercise in ingenuity. The fact that two students were simultaneously involved in the simulation provided an experience of cooperative problem solving, a compromising of priorities, and the necessity for agreement on the general direction in which to proceed. Students were encouraged to give each other feedback; thus, the clinical simulation also provided an opportunity for students to act in the role of instructor and supervisor. Because the simulation occurred in a protected environment, not involving a real patient and family, it encouraged risk-taking behavior. In a sense, students could experiment with their own behavior without suffering aversive consequences. In a very practical way they could see the effects of different behaviors. They could try out new behaviors which might appear too risky in a clinical setting. Thus, they were provided an opportunity to expand their professional behavioral repertoire without incurring risks to either themselves or their patients.

A further strength of the FOCS was that it gave the students more awareness of the complexity of the concept of social environ-

ment (in this case, the family). PT students were able to directly experience the impact of family on the patient's response to a given impairment. They were also able to see how family response could influence their own therapeutic effectiveness.

Even though the clinical simulation was, as the name states, a "simulated" situation, it still evoked a strong sense of reality in the participants and for the majority of students became a personally involving experience. Because of the amount of time needed to complete a simulation, generally between 40 and 60 minutes, students quickly lost the initial sense of awkwardness and unreality they experienced when confronting the situation. They normally became quite involved in understanding the patient's history and current problems and often found themselves caring to a surprising extent about the outcome for a particular patient and family. The kinds of lessons they learned about patients, about families, about disease, and about themselves had many carry-over applications to real professional and clinical settings.

Students were often encouraged to write their own simulations as part of their training experience. This proved to be an excellent self-instructional device. Creating a simulation gave students an experience of developing a medical history and a psychosocial history for a hypothetical patient and family. This firsthand experience forced them to consider the interrelatedness of many real problems and to explore possible solutions.

POTENTIAL TRAINING USES

Development of the FOCS as a teaching aid could have far-reaching benefits throughout a physical therapy curriculum. New physical therapy students might feel most comfortable playing the role of a patient; an advanced student could play the physical therapist. Whether playing patient, family member, or physical therapy intern, one would receive insights from the entire situation and could better understand the motivating factors behind each person in the simulation. For example, students might first play a patient so they could then vicariously

experience how it feels to be dependent, pushed in a wheelchair or transferred to the commode. Do students respond to the therapist's concern or are they put off by a condescending attitude? How do they prefer to be treated while playing a patient? This process might help them to define themselves as therapists. If the same student plays a family member in a subsequent simulation, he or she might then become more empathetic to the needs of the family member to be a viable part of the health care team. The frustrations and the fears of failure for having to care for a person who now seems like a stranger also can better be appreciated.

Although experimentation with the FOCS occurred initially with physical therapist and psychologist, the general interdisciplinary nature of the technique has wide-ranging applications. Family-oriented treatment and training in particular calls for an interdisciplinary approach, where different viewpoints and perspectives are brought to bear on the complexity of a particular patient and family. Thus, it is easy to imagine the development of FOCS by the interdisciplinary collaboration of occupational therapists, physical therapists, nurses, social workers, dieticians, medical sociologists, and anthropologists. Basic to the concept of the FOCS is the collaboration of disciplines all involved in various aspects of family-oriented patient care, each bringing a unique perspective and expertise to that treatment.

SUMMARY

In conclusion, it is important to stress that the family-oriented clinical simulation included problems in physical therapy and problems in how to deal with the psychological and emotional concerns of the patient and family. In the actual role-play of the simulation the student was expected to deal with both of these issues in an integrated way. In the feedback session, the student received feedback from a clinical psychologist and from a physical therapist, with the emphasis on the interaction between physical and emotional problems.

It is important to note that the primary emphasis of the simulation had to do with

problem solving within a given professional discipline, in this case, physical therapy. The student was not expected to function as a mini-psychotherapist for a particular patient and family.¹³ Rather, the skills the student was expected to develop had to do with the ways in which he or she could use family dynamics to enhance specific professional goals. Thus, the student was encouraged to develop active listening, reflective, and confrontive skills and to use reinforcing statements and exploratory questions. The function of these family-oriented interventions was not primarily to enhance the student's personal growth but to facilitate communication between physical therapist, patient, and family to implement specific professional goals.

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