Challenges and Benefits
of Interprofessional Education:
Evaluation
of the Inter-Professional Initiative
at the University of Southern California

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There is growing awareness that many of our most difficult and complex urban problems cannot be adequately addressed by large-scale traditional institutions, especially those that work in isolation from each other and from the communities that they are trying to serve. The "common purpose" of many reformers working to rethink these institutions is to develop seamless webs of services and supports that can help to improve outcomes for children, youth, families, and communities (Schorr, 1998). This will clearly require collaboration on many levels—between groups of community residents (Medoff & Sklar, 1994), between community members and professionals (Bishop, Taylor & Arango, 1997; Cutler, 1997), and between different kinds of professionals.

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While such collaborative efforts are not new, having existed since at least the turn of the century (Addams, 1961), interest in collaboration has waxed and waned. Interest peaked in the 1960s and 1970s, when the federal government sponsored numerous efforts to improve services for the poor and disad-

vantaged, and decreased again during the Reagan years of the 1980s. In the 1990s, collaboration, partnerships, and integrated services are once again being seen as effective approaches to resolving complex urban problems (Waldfogel, 1997). According to a report from the United States General Accounting Office (1995), integrative approaches are more viable now than ever, since community organizations have gained experience and there is some infrastructure to provide funding and technical assistance.

Communities throughout the United States have developed collaboratives to help professionals deliver a comprehensive continuum of services to clients in need (Chang, De La Rosa Salazar & Leong, 1991; Himmelman, 1992; Melaville & Blank, 1991, 1993; Morrill, Reisner, Marks & Chimerine, 1991). These collaborative efforts include individuals and organizations representing a broad range of professions. Successful collaboration requires effective interaction among these professionals and the people they hope to help. Yet many professionals, due in part to the nature of their professional education, do not have the knowledge, skills, and/or attitudes needed to operate effectively in an interprofessional environment. Thus, increasing attention is being given to the importance of developing effective interprofessional education programs.

Interprofessional Education

The knowledge base gained from years of experience with interdisciplinary education provides the groundwork for interprofessional education programs, which are distinguished by their added focus on preparing students for application of their skills and knowledge in professional service delivery organizations. Interprofessional education can help prepare workers for practice in fast-paced challenging community-based environments by preparing them with "a more comprehensive set of diagnostic and treatment capabilities, by shared working knowledge of applicable ethical considerations, and by an understanding of patient/clients as whole beings and as carriers of cultural complexity and social change" (Snyder, 1987: 98).

A primary purpose is to overcome the limitations inherent in most professional education programs, namely, the relatively limited set of perspectives, values, and norms that are instilled to guide the professional's practice. Interprofessional education is intended to broaden the student's exposure to other professions, both to develop a better understanding of multiple roles and to learn how to collaborate to improve service delivery. Whereas most professionals are taught to specialize and focus on the few areas where they are most knowledgeable, interprofessional practice encourages the professional to focus on the human being as a whole person within his/her family, community, and societal systems. The key is integration of mind, body, and spirit (Dunn & Janata, 1987).

Students need to learn to appreciate the skills, knowledge, and expertise held

by members of each discipline so that they will respect and value input in the team's decision-making process; learn the functional roles of each discipline in the team; learn the interpersonal skills necessary for practice in a multidisciplinary context; and learn the skills required for problem-solving and decision-making in groups (Bassoff & Ludwig, 1979). They also need to learn skills associated with group dynamics, conflict resolution, problem solving, decision-making, interpersonal relations, and interpersonal, group and organizational communication (Klein, 1990).

A key unanswered question concerns the personal characteristics of students who will be most successful in interprofessional education programs. Although there has been very little empirical research designed to examine the premise that certain individuals are more likely to succeed in collaborative initiatives, some programs have tried to outline the unique characteristics of students likely to be successful in interdisciplinary education. Klein (1990: 182-183) identifies these characteristics as

> ...reliability, flexibility, patience, resilience, sensitivity to others, risk-taking, a
> thick skin and a preference for diversity and new social roles. The ideal person is
> someone with a high degree of ego strength, a tolerance for ambiguity, consider-
> able initiative and assertiveness, a broad education, and a sense of dissatisfaction
> with monodisciplinary constraints.

In addition, Bassoff (1976/77) suggests that students should be truly flexible learners who are able to communicate comfortably because they are familiar with the philosophical and practice foundations from which other disciplines operate.

Although we believe that interprofessional education is important if higher education is to prepare effective practitioners for a collaborative future, such programs tend to go against the grain of higher education, raising both practical and conceptual challenges. To their credit, more colleges and universities are taking on the interprofessional education challenge every year.[2] To support their efforts, we present here detailed findings from the evaluation of the University of Southern California's (USC) Inter-Professional Initiative (IPI), in hopes that others may avoid some of our mistakes and learn from our successes.

Implementation of the USC Inter-Professional Initiative

IPI began in 1991 in response to widespread interest in collaboration in Los Angeles and the burgeoning number of local collaboratives (Los Angeles County Children's Planning Council, 1995). IPI is itself a collaboration between service delivery institutions and USC academic programs focused on preparing students for effective collaborative practice. During its five years of operation, IPI demonstrated its ability to stimulate and maintain a balanced and diverse base of participants—including students, faculty, university administrators, and community site leaders. More than 115 students and numerous faculty from 11 academic units (education, social work, nursing, public administration, sociology, clinical psychology, den-

tistry, medicine, physical therapy, occupational therapy, and pharmacy) participated in IPI's field practicum and courses, while over 400 additional students gained exposure to interprofessional concepts through one-time lectures, field visits and structured discussions. This article summarizes the findings from an evaluation of IPI conducted in 1996 after its first three years of operation.

In preliminary discussions during 1990-91, faculty and deans at USC and leaders of community-based partner agencies identified many of the challenges associated with the development of an interprofessional education program at the university (e.g., credentialing requirements, scheduling, different professional cultures, university funding mechanisms, and tenure pressures). Despite these challenges, we decided to begin a pilot project for which we defined the following mission statement and guiding principles:

Mission Statement. IPI is a collaboration of service delivery institutions and USC academic programs oriented toward effecting change in individuals, organizations and the service delivery system. Its purpose is to improve outcomes for children and families through better service delivery, education and training, based on new theoretical foundations and innovative practice strategies.

Guiding Principles

1. The measure of a professional should be high-quality service delivery that leads to improved outcomes for clients.

2. The university-community partnership should be characterized by trust, mutual support, team synergy and shared commitment.

3. Community perceptions of need and strengths should guide service professionals, who should work with community members to help shape realistic expectations and outcomes.

4. Preparation should explicitly recognize the interactive and mutually supportive roles of multiple professions involved in solving complex problems, and the importance of developing cognizant professionals able to access and value one another's skills.

5. USC and its community-based partners should share common agendas including: creating environments that allow for and support growth and change; devising management and program structures that support staff and customers; bringing policy and practice in line with changing family and community needs; and providing professionals with pre and in-service training that supports work in changing environments.

6. Partnerships between community-based service delivery institutions and universities should produce practical laboratories for learning; such partnerships should lead to improved community-based preparation, as well as to improved service delivery.

7. Systematic evaluation should focus on the processes and impacts of collaboration on students, community-based agencies, universities, families and children; research should focus on knowledge building to support practice and policy decisions.

The day-to-day operations of IPI were the responsibility of a coordinating team consisting of the Principal Investigator (a full time tenured faculty member) and paid staff including an Executive Director and a Field Instructor. The Implementation Council, which included two representatives from each participating site, faculty and/or deans from the various participating academic units, and the IPI staff, was responsible for general oversight and ongoing review of goals and objectives. The Executive Committee which included site representatives, faculty, two Deans and the Executive Director was responsible for policy making and fundraising.

Student interns were recruited from a variety of academic units for placement in the fall semester. Participants served an internship at one of the operational sites as members of an interdisciplinary team at least one full day per week and attended a bi-weekly seminar. The seminar included the student interns, the site preceptors (i.e., representatives from the sites, who were designated as the liaisons between IPI and the site organization), the faculty mentors (i.e., faculty from the participating academic units, each of whom was assigned to work with the team at one of the operational sites), and the IPI staff.

The seminar was designed to improve the students' ability to function in an interprofessional setting. Students received an orientation regarding each of the operational sites; were exposed to theoretical material underpinning interdisciplinary collaborative practice; engaged in discussions, role plays, and other exercises designed to enhance their understanding and skills relevant to practice; and spent time in their site teams discussing practical issues relevant to working together at these sites. At the end of the semester, these teams made videotaped presentations to the class regarding their progress and experiences during the semester.

While the seminar was a fundamental aspect of the IPI experience, the internships at the site organizations provided an exciting context in which students could get "hands-on" experience working with students from other disciplines and delivering services in an inner city inter-professional setting. The five community sites which were on-going partners are Foshay Learning Center, Norwood Street Elementary School, the Pediatric & Family Medical Center, the USC Neighborhood Resource Center, and the Hope Street Family Center.

Collectively, the interns engaged in a wide variety of discipline-specific and interdisciplinary team activities at these sites. For example, at Foshay Learning Center, interns organized and presented a two-day health fair for the seventh grade students. At Norwood Street Elementary School interns participated in the school's guidance committee, a central case coordination mechanism which has primary responsibility for assessing student needs and referral to needed services. They have worked with the school psychologist and the Pupil Services & Attendance Counselor in the provision of follow-up counseling services and home visits. The interns at the Pediatric & Family Medical Center produced resource books for clients and contributed to the development and translation into Spanish of needs assessment instruments. Students at the Hope Street Family Center planned and designed a new

program component, a family recreation and activity center. At the Neighborhood Resource Center, interns completed a community-based needs assessment and planning process.

While the majority of participating students were enrolled at the masters level, IPI students also included some undergraduates (especially senior nursing students) and doctoral students (from public administration, education, and sociology). Students who expressed an interest in IPI were interviewed to determine their expectations and learning needs. Team assignments were made by IPI staff to assure a balance of professions and perspectives on each team, as well as the minimum knowledge and skill base necessary to operate effectively at each site. The interns were supervised by university-based faculty and staff and by community-based preceptors at each site. According to their different needs, interns had opportunities for field experiences in their areas of specialization, as well as the chance to work collaboratively with students from other disciplines at each site.

In addition to the activities described above, doctoral seminars focused on the conceptual and analytical underpinnings of interprofessional practice were offered for doctoral students in 1995 and 1996. In the 1995 seminar, the students assessed the site organizations participating in IPI in terms of the elements that facilitated and/or inhibited the effectiveness of their IPI participation. In 1996, an interdisciplinary team of eight doctoral students—from clinical psychology, counseling education, educational psychology, public administration, social work, and sociology—worked with the lead authors to conduct an overall evaluation of IPI effectiveness on which this article is based.

Evaluation Methodology

Three primary sources of data were used to conduct this evaluation. First, many IPI participants from each of four groups of participants—students, faculty, site personnel, and USC deans and administrators—were interviewed. Second, the videotaped student team presentations from the end of each fall seminar for three years were content analyzed. Third, the results of pre- and post-tests completed by students at the beginning and end of each fall seminar were analyzed to assess changes in attitudes and knowledge.

During the spring semester, the evaluation team worked together to develop a set of interview protocols to interview IPI participants. Collectively, these protocols included over 30 questions which addressed three main areas of interest related to program functioning: (1) the preconditions required for successful participation in and operation of IPI; (2) characteristics of the structure and processes of IPI; and (3) the outcomes or consequences of program participation. Open-ended questions generated primarily qualitative data regarding key issues while only a few questions generated quantitative information.

The doctoral students were also responsible for conducting interviews; they

attempted to contact all students, faculty, site preceptors, and USC administrators who had been involved in the program during any of the three academic years of its operation before 1996. Unfortunately, records had not been updated for all the former students, so many of the phone numbers and addresses on file were no longer correct. Thus, many of the student participants—especially from the first and second years of IPI—were not found or interviewed. The evaluations were conducted in person or by phone during a six week period.

Videotapes of the end-of-semester presentations were examined by three members of the evaluation team, who coded comments into several categories: problems, communication, expectations, benefits, definitions, and continuing needs. Researchers examined six hours of videotape and recorded a total of 409 comments. Of these 18 percent were about problems encountered by the participants; 11 percent were about communication difficulties; 4 percent were about the preconceived expectations of participants; 63 percent were about the benefits of participating in IPI; 1 percent were about the nature and purpose of interprofessional activity; and 8 percent were about aspects of the initiative that participants felt needed further examination.

The third source of information was a pre-post test of participants' attitudes and knowledge relevant to interdisciplinary practice. This survey, based on a questionnaire developed at the University of Washington for a similar interprofessional training program, was completed at the beginning (pre-test) and end (post-test) of the fall seminar each year. This survey provided a measure of the extent to which participants were knowledgeable about various service-providing roles and their responsibilities, had beliefs and skills pertinent to interdisciplinary collaboration, and were prepared to engage in a number of activities required to meet the needs of high-risk children and families. Evaluators used t-tests to determine whether there were significant differences between the pre-test mean scores and the post-test mean scores on the survey items

Findings are presented first in terms of challenges experienced by the participants, and then in terms of benefits resulting from involvement in IPI.

The Challenges of Interprofessional Education

Participants discussed the challenges of interprofessional education in three groupings: preconditions, structure and processes, and communications.

Challenges Related to the Preconditions of Participation in IPI

The students reported two differences between their expectations of IPI and their actual experiences. The first challenge, which was expressed only by those in the first cohort of students (1993), concerned a difference between what students thought would happen over the course of the semester and what actually happened. They reported that students sometimes had different expectations and different

levels of satisfaction with group experiences which led to conflicts within the groups and the eventual dissolution of one group. However, since this issue was limited to 1993 students, with the students in the following two years not indicating that this was as great a concern, it can be inferred that there was intervention between the first and second years of the program that helped to alleviate this problem.

The second concern voiced by students from all three years was a general confusion about what was expected or required of them throughout the semester. Students indicated they did not have a clear understanding of what they were supposed to do once they were placed at the site. Student comments included statements such as, "It was hard to understand what we were supposed to do, what the goal was, and to coordinate everything," and "I had no idea what to do, and I wasn't told what to do."

Perhaps because of the nature of interprofessional work, with greater emphasis at times on process rather than on task, students struggled with their initial plans at the site. Quite frequently, students did not realize how much freedom they had in choosing a group project since they were generally not used to this amount of latitude in classroom-based projects. Students in an academic environment are likely to be oriented towards achieving specific and concrete goals. When these students were given the freedom to move on their own ideas during the IPI semester, they faced initial frustration from their inability to agree on tasks. However, most were eventually able to achieve clarity, to plan and accomplish a group task and they thereby gained substantial satisfaction (Taylor-Dinwiddie & Artavia, 1998).

The site personnel agreed that participation in a program such as IPI is essential to developing effective professionals. One role of site personnel in IPI was to act as liaisons among the many people at the site, the students, and the IPI faculty. Some of the personnel also provided supervision for students. Statements from the interviews with site personnel indicated that they chose to participate in IPI not only to broaden the services their organization provided, but because the goals and guiding principals of IPI seemed to mesh well with their individual beliefs. The site personnel felt that students needed to be more engaged in programs that allow them more real experiences in team building and cooperative learning and more exposure to other disciplines. Overall, the site personnel seemed to feel that IPI had provided these opportunities.

The site personnel did, however, express a concern regarding their own expectations and reported that they too felt their roles were not clearly defined at the beginning of the program. They indicated that their roles were more clearly defined after the first year of the program.

The university faculty, deans, and administrators associated with IPI also reported challenges in regard to program preconditions. First, the faculty indicated that lack of space at the sites was a crucial concern, especially for the sites at which students were expected to do counseling. University faculty talked with site personnel about the importance of space and tried to negotiate for more adequate

space for student activities, but space was a continuing challenge at these crowded inner city schools and clinics. University deans and administrators also reported that external funding was a big challenge for IPI. Without at least some funding from sources outside the university, IPI would not be able to continue operating at full capacity.

Challenges Related to the Structure and Processes of IPI

Most of the comments made about the challenges of working in an inter-professional program were about problems with structure and process. Many participants expressed frustration about the difficulty of learning to do new things, feeling left out of the decision-making process, deferring to another team member, or the uncertainty of prioritizing needs at individual sites. For the students and the site personnel, dealing with the frustrations related to structure and process seemed to lead to the greatest learning and awareness about working interprofessionally. These challenges included three major areas of concern: (1) preparation for IPI; (2) issues at the sites; and (3) group processes.

1. *Structure and process challenges related to preparation for IPI.* Students, university faculty, deans, and administrators all mentioned that the students were not always adequately prepared for participation in IPI. This lack of preparation may have led to the lack of direction the students reported when they were placed at their sites. Each year, approximately 40 percent of the students indicated that they had not been properly prepared by their departments to participate in the interprofessional experiences of IPI. The comments of the university deans and administrators reflected the same sentiments. They felt that some students encountered difficulties in finding their places and in interacting with other students because the individual disciplines did not focus on collaborative activities.

Students also felt that they had not received enough preparation through the IPI seminar. This was especially true for the students in the first year (1993), several of whom stated that the seminar only gave them an understanding of what was happening at different sites, not a goal for what to do at those sites. The deans and administrators shared this concern by indicating that fewer people should be included in the decision-making processes for IPI because of what some perceived to be poor coordination and communication among multiple players.

2. *Challenging issues at the sites.* The students expressed a variety of concerns about the sites to which they were assigned. Many problems were resolved through communication among the site personnel, the IPI staff, and the students. However, one challenge seemed to reappear every year. As the site personnel stated it, some students felt that people at the sites did not understand who they were or what their functions were supposed to be. This probably contributed to the fact that individual students across all three years became frustrated with site personnel. For example, more than one student group indicated they felt the teachers at a school site made

it more difficult for them to do their job. This may be attributed to the fact that students were having difficulty understanding the system at the site, or that the sheer size of these rather large schools was overwhelming to some students. As one student noted: "The logistics of working in the school was a big problem."

3. *Challenges related to group processes*. Students reported that they experienced interpersonal problems with other group members around issues such as learning how to share leadership and how to deal with lack of focus. Other students reported conflicts among team members which had to be resolved (i.e., aggressive and opinionated group members, competitiveness, lack of commitment from some group members). Other specific challenges included problems with scheduling, issues of gender and culture, and questions about roles within the group.

One of the primary challenges that the students identified had to do with scheduling. Each year, some teams had difficulty arranging common meeting schedules. Across all three years, students cited scheduling conflicts and limited time as barriers to making the most of the IPI experience. University faculty also indicated that it was challenging to find the time and energy necessary to meet the needs of IPI students. They mentioned that getting community people involved in IPI was a challenge, noting that only the efficient leadership of IPI administrators kept the program going during difficult times.

Another challenge identified by the students involved coping with differences in gender and culture among the students. Intragroup issues of culture were mentioned only by 1994 students and gender difficulties were reported only by the 1995 group. Students reported that cultural issues caused personality conflicts and interfered with group processes. They reported that these issues were overcome through communication in meetings involving IPI personnel, site staff, and students.

Another challenge focused on changing roles in the group. Students questioned leadership in the groups and how best to deal with those individuals who were not committed to the group and its processes.

Difficulties working with individuals from other disciplines were also reported by students. Site personnel noted that each profession seemed to have different ways of handling the same issues. For example, intake evaluation or assessment plays a key role in most professions. However, there are significant differences among professionals about effective assessment strategies.

Students in all three years mentioned the challenges they experienced in attempting to build a working collaborative model among so many professionals, given their own predispositions toward their own professional models. They noted incompatibilities in language, process, and/or professional models that sometimes seemed unresolvable. Some groups addressed these difficulties by dividing up projects, with each member specializing in his or her own area. Other groups attempted to come to consensus about overall projects. Some groups reported that conflicts remained unresolved and that some members dropped out, while con-

versely, other groups reported no difficulties at all. It appears that professional differences were moderated by the personalities of those in the group.

Challenges in Communication

Challenges in communication were grouped into three main areas of concern: (1) communication among group members; (2) communication among IPI participants; and (3) professional language issues.

1. *Challenges of communication among group members.* In the interviews, students and site personnel were asked to assess, on a five-point scale ranging from "very poor" (1) to "excellent" (5), the quality of communication among the members of the student teams. The average response from the 29 students and site personnel interviewed was 3.61, indicating that communication between the students on the team was perceived as above average. Interview responses suggested that the student groups seemed to be disrupted when individual members did not respect the opinions of others.

2. *Challenges of communication between IPI participants.* Students were also asked to assess, on the same scale, the quality of communication between IPI staff and students, site staff and students, and IPI staff and site staff. The average scores for these three categories of communication were 3.82, 3.63, and 3.56, respectively. It is not surprising that the highest score was associated with communication between IPI staff and the students as these two groups probably had the most contact with each other. The lowest of the three scores was associated with communication between IPI staff and site staff. While there was frequent dialogue between IPI staff and site personnel, this may not have been obvious to the students or adequate to resolve all student problems. These relatively low scores may reflect student perceptions that IPI staff and site staff did not coordinate their activities (i.e., the seminar and the site internship) as well as they could have.

3. *Challenges of professional language.* The most commonly reported communication challenge was differences in professional language. The primary issue seemed to be lack of understanding of other professional languages which led to difficulty in communication. One student noted that "professional language was a barrier—having to define terminology related to each profession held things up." This caused some friction among students from different disciplines.

The Benefits of Interprofessional Education

By far the greatest number of comments in the video presentations given by the students related to program benefits. A full 63 percent of the comments were divided among four areas of benefit: professional and personal growth, group process and dynamics, cultural competence, and outcomes for clients. Data from the interviews also addressed these four areas of benefits.

Benefits Related to Professional and Personal Growth

All of the groups that participated in IPI reported that they had experienced substantial personal and professional growth as a result of the IPI experience.

1. *Benefits related to growth for students*. The primary goal for IPI was to give students an opportunity to experience the real life challenges and skills found in an interprofessional workplace. In this regard, IPI seems to have been successful. The faculty members reported they felt that all of the students involved in IPI increased their knowledge and skills and that they did so in a "real life" environment. In the opinions of the university instructors, the students benefited from interacting with the faculty in a working environment rather than only in an academic setting. The faculty also felt that students learned to respect other professionals, to know themselves better, and to be better able to evaluate their own goals. Furthermore, USC administrators added that IPI offered a good chance for interaction between undergraduate and graduate students which is good for the departments and the schools at the university as well as for the students' personal and professional growth.

One of the most significant results reported by students was in the area of professional growth. Students reported that the experience "clarified my own role as a social worker," "broadened my professional view and identity," or "developed my confidence as a professional." Many students noted that they had learned much more about their own professions, as well as about other professions. Others mentioned that they had become more effective workers. They were now able to assess problems beyond the scope of their own areas. One student said, "My role was extended from a nurse to a more collaborative health care provider."

The benefit mentioned most frequently by the students was the opportunity to gain multiple perspectives. Almost all students said they learned about other disciplines, including what other disciplines focused on and how those disciplines actually worked. Students noted they were able to broaden their view of other professionals (e.g., one student reported discovering how political science could be a "helping profession").

Working in interprofessional groups, these students found their initial stereotypes of other professions were incorrect or misplaced. They became more open to working with those outside their own fields and reported an increased respect for other disciplines. The impact was powerful. For example, one student reported initiating more collaborative work and team projects at her job. Students also found their skills increased as they were able to assess problems beyond the scope of their own professions. One student found that "working with other students from other disciplines allowed me to combine theories and reality."

Students reported that another benefit of working with other disciplines was the discovery of numerous resources available to them as professionals. It was one thing to learn the theoretical implications of various approaches in dealing with

specific problems, but to many students it was more important to learn about the practical resources that were available to their clients. Some participants commented that they "learned about resources in the community" which they had not known about before.

Another significant area of benefit reported by students was personal growth. While the IPI program was not directly committed to the individual's personal growth, this was clearly a substantial indirect benefit of the IPI experience. Students often linked the personal benefits they received with the difficulties they encountered in being involved with other professionals from different disciplines. Some students commented about "learning about flexibility and patience" while others felt they "really grew from the talks" and still others mentioned achieving "self-awareness...how to work when insecure." The word "awareness" was used frequently in the videos to describe personal experiences.

Data from the pre- and post-tests provided additional information about the professional and personal growth experienced by IPI student participants. Comparison of responses from the beginning of the semester to those at the end of the semester indicated that students better understood each others' roles. Students also indicated improvements in their understanding of the dynamics and structures of social service agencies and community health agencies.

Students' survey responses also indicated increased knowledge about how to meet the needs of high-risk children and families, coordinate multiple services, assess mental health problems, intervene in family crisis situations, locate and refer clients to appropriate services, identify opportunities to prevent community health problems, identify resources for addressing needs of families and children, and work with community groups in addressing the needs of families and children. In particular, students indicated that the IPI experience had enhanced their knowledge about how to deal with professionals and clients from diverse cultural and ethnic backgrounds. It is also worth noting that the improvements exhibited by these students were greater in 1994 and 1995 than in 1993. This probably reflects improvement in the IPI program itself from the first year to subsequent years. Changes made to improve the quality of the program appear to have paid off in terms of a stronger learning experience for the students. Certainly, the faculty team believed that the program design improved each year, reflecting our increased knowledge and understanding of student responses.

2. *Benefits related to growth for faculty.* It was hoped that IPI would also help faculty by opening their minds to the issues of the inner city, enhancing their expectations of students, and making them more effective in the classroom. IPI also seems to have succeeded in these respects. During the interviews, faculty indicated that participation in IPI increased their cultural sensitivity and knowledge of inner city communities. Furthermore, the faculty reported that participation in IPI allowed greater exposure to new ideas and more opportunities to work with

different people in a group setting. Finally, the faculty members reported increased flexibility in working with students, especially in regard to issues of diversity.

3. *Benefits related to growth for deans and administrators.* Interview data indicated that the deans and administrators felt they benefited from IPI. Their comments indicated that they, too, experienced professional benefits from participation in the IPI. They reported that, after participation in IPI, they were more familiar with other disciplines. More than one dean mentioned that they had a good experience working with deans from other departments, giving them a better sense of how USC's departments could cooperate and network.

4. *Benefits related to growth for site personnel.* Overwhelmingly, the comments of the site personnel indicated that the IPI experience positively changed their perception of other professions. Site personnel felt that IPI helped to broaden their understanding and knowledge of other disciplines. Across all sites, respondents mentioned a better understanding of what other fields were doing professionally. In addition, they indicated that participation in IPI pushed them to discover more community resources in their area and to better understand team building.

Benefits Related to Increased Understanding of Group Process

An important benefit reported by IPI students was learning how to work in a group environment. Students stated that they "learned how to work through the conflicts" and "learned from others as a team." It is not surprising that some students ranked this as one of their most positive experiences during the IPI semester.

The most commonly reported benefits identified by students in the area of group processes were being able to handle conflict more effectively and to resolve problems more efficiently. Students reported increases in their personal skills by learning to be more respectful, patient, and flexible. They reported that they had become better listeners and were better able to communicate in groups. They learned how to deal with differences that arose between people due to culture or personality. As a result, students found they were able to be more efficient and effective. They commented, for example, that "through communication with other members of the group, I was able to learn my role," and "it made me realize it involves group dynamics in order for a project to be a success."

One male participant said this was his first experience working with an otherwise all-female team and that the experience was informative and enjoyable. A few students commented that learning to share power and work as a team, as opposed to dominating the group, was beneficial. They emphasized increased self-knowledge through working in groups.

More than one student cited an increased sensitivity to difficulties that arise when working with colleagues. Participants described the ongoing dialogue among students, site personnel, and university faculty as helpful and commented that this interaction assisted them in "distinguishing [the roles] of other professionals" as well

as adding an increased awareness of the tasks at hand. While site personnel had gotten involved in IPI because they valued collaboration, several reported that they had underestimated the extent of the benefit until they experienced the benefits first hand.

Benefits Related to Improved Cultural Competence

Most students reported that they had made "considerable improvement" in working across diverse cultural groups. Direct involvement in diverse settings with diverse groups seemed to provide the impetus for change: "I truly learned to respect the students I served and to understand their need for intervention by being part of their environment"; and "It made me appreciate other cultures, because meeting someone can change your opinion of their group." Perhaps the most telling comment came from a student who said, "One of the greatest challenges was to look at how I felt about racism, cultural issues, and about my own ethnicity."

According to the site personnel, cultural, class, and professional ethical differences were significant issues at the sites. Each student came to the site with his or her own set of values and beliefs. Certain students came into conflict with others who had different sets of values and beliefs. The site personnel reported that one of their greatest challenges was trying to help students better understand the populations they were serving.

The results of a study done by one of the faculty members who taught a class session in the IPI seminar on cultural competence (Salcido, 1998) also provided pertinent information. During one class session, students made significant improvements in their cross-cultural knowledge and skills according to pre- and post-test scores. Furthermore, at the end of the semester, the IPI field educator rated the students as having improved cross-cultural skills and greater cultural competence.

Overall, the cross-cultural exposure and training had a positive effect, as indicated by the number of students who claimed during the video presentations and the interviews that they were more willing to work in diverse settings as a result of their IPI experiences. Many students indicated they were so influenced by their IPI experiences that they were broadening their future plans. For instance, several students said they were more likely to work in the inner city or in multicultural settings after their experiences in IPI.

Benefits Related to Improved Outcomes for Clients

The site personnel reported that there were a number of benefits in terms of outcomes for their clients and community. They reported that the IPI student projects were very valuable. The actual events, resources, and services provided to clients at individual sites by the IPI students were tangible benefits. The students organized and ran health fairs, presented health information assemblies to students, created resource and referral notebooks, created parent education and other new programs, and provided individual counseling and therapy groups for students, parents, and individuals in the community.

All site personnel interviewed felt their clients benefited from participation in IPI. Additionally, personnel at school sites reported that teachers were very appreciative of the IPI students' efforts.

The students mentioned this area of benefit the least, appearing to be more aware of the collaborative process than its outcomes. Many students did report, however, that they felt better able to serve clients as a result of their IPI experiences. The students' comments indicated that the IPI experience had increased their understanding of the complex problems facing clients, customers, and communities.

Conclusions

All in all, the evaluation findings reflected considerable satisfaction with the program from the perspectives of all four IPI participant groups—students, faculty, community site leaders, and university administrators. The benefits in terms of personal and professional growth of students were especially striking .[3] All of the participants reported that, by and large, the benefits of this kind of intensive interprofessional educational experience outweighed the challenges. Indeed, the primary benefits were derived by working through the considerable challenges of interprofessional team work in "real life" inner city schools and agencies.

While there were many benefits, the time and resource demands of this kind of hands-on multifaceted educational program have been extraordinary. At the end of our fifth year of operation (1997-98), the participating schools and departments at USC made the decision not to continue IPI as it was originally conceived and designed. This decision was brought about by changes in key administrative personnel, recognition of the demands placed on participating faculty and site staff, and loss of funds from an important external funding source.

While faculty and site staff who were most directly involved felt that they had derived many personal and professional benefits from five years of IPI, they also knew the extraordinary time demands of this kind of intensive hands-on educational experience. Each member of the team had donated time above and beyond the "normal" demands of classroom teaching, student supervision, or field instruction. That they did so over five years speaks to the commitment of each team member as well as to the rewards of teamwork. The intensity required for this effort, however, raises questions about how to better structure interprofessional education programs that are equally effective for students, but less time-consuming for faculty and staff.

Another key issue was the program's dependence on external funding. IPI was fortunate to be able to raise funds from a number of external sources; this allowed us to support one or two staff positions that could be dedicated to organizing and coordinating program activities (the specific number of full-time-equivalent positions differed somewhat from year to year). From the beginning, the team discussed the need to "institutionalize" IPI at USC, moving from a large measure of

dependence on external funding to incorporation of IPI into the regular budgets of the participating schools and departments. Fiscal management structures at most universities would make this difficult to do, and it was especially difficult in a private university with a revenue responsibility budgeting system where each unit is responsible for its own revenues and expenditures (Picus, 1998). Financial support for IPI would have to be "taken from" other lines in the already over-burdened budgets of participating schools and departments. While the deans and directors of these units had originally been willing to provide a good deal of support for IPI, changes in personnel and other circumstances ultimately meant that they were unwilling to cover a high proportion of program costs.

We hope to develop new interprofessional initiatives based on our learning from and experiences with IPI. For example, we have developed a new interdisciplinary minor for undergraduate students, Families and Children in Urban America, which will be offered in 1999-2000. Translating IPI concepts from a culminating experience for professional students to an introductory experience for undergraduates will undoubtedly bring its own challenges and benefits. Also, the Pediatric and Family Medical Center has recruited IPI's Executive Director to design and implement a new family-focused program approach involving many of the IPI team members from the university and from other sites in a community-based partnership, building on many of the lessons learned from IPI. Many schools and departments also continue to place different kinds of student interns at local schools and agencies, but these students will have much more limited opportunities for joint activities and teamwork.

One of the limitations of IPI was that we did not fully develop a research agenda which could be integrated with our primary focus on professional preparation. While research by USC faculty and doctoral students helped to inform the educational activities of IPI (McCroskey & Einbinder, 1998), a broader research agenda could have helped to attract more faculty involvement, as well as increasing our limited knowledge about interprofessional practice. This will be an important piece of any future IPI-related activities.

If the benefits of IPI were tangible and profound, unfortunately the challenges for the university were equally profound. This kind of effort goes against the grain of higher education—demanding communication across units, flexibility in scheduling, cross-listing of courses, mixing of graduate and undergraduate students, and many other such "unnatural" activities. It is still extraordinarily difficult to coordinate and manage such multi-departmental initiatives at most colleges and universities; they require determined leaders, lots of time, additional resources and, often sheer stubbornness in the face of indifference and opposition.

It is clear, however, that current approaches to professional preparation in institutions of higher education do not prepare practitioners for the kinds of comprehensive, coordinated service delivery that can meet the needs of stressed and overwhelmed families and children in poor urban communities like Los Angeles—

the kinds of practitioners most needed for the next century. The need is real and urgent. Something has to give.

> The way I see it, every child is basically a locked door and each profession has a key. Between us, we have all they keys we need to open that door and give us all the opportunity to do our jobs. (Ron DesMarias, Teacher Education and IPI student, 1993-4)

Notes

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2. Increasing interest is suggested by attendance at two national conferences addressing interprofessional education and training. At the first such event, held in Seattle, Washington, in 1993, about 15 colleges and universities were represented. By 1995, in Los Angeles, as many as 50 colleges and universities were represented (Brandon & Meuter 1995).

3. Copies of a videotape of student reactions to IPI can be obtained by writing to the lead author at the University of Southern California School of Social Work, Montgomery Ross Fisher Bldg., Los Angeles, CA 90089-0411.

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