Social Workers and Technology: Challenges of the Multidisciplinary Team

A. Elizabeth Cauble, PhD, and Janice M. Dinkel, MSW

Social workers have long worked as members of multidisciplinary teams in medical, mental health, and child welfare settings (Kush & Campo, 1998; Marans, Berkowitz & Cohen, 1998; Saloff-Coste, Hamburg, & Herzog, 1993). However, participating on a multidisciplinary team to develop computer-based, interactive multimedia, continuing education programs is new to the field. Such a project is described here, with a discussion of the dynamics of the team. Kansas social services agencies have an ongoing commitment to provide continuing education and staff development for social workers in rural areas of the state. The continuing education focus on issues related to child welfare reflects the need for generalist rather than specialist professionals in rural areas. The Kansas Department of Social and Rehabilitation Services (SRS), in collaboration with Kansas State University, developed a multimedia training project to meet social workers' continuing education needs. The project relied on a multidisciplinary team of social workers with child welfare expertise, and professionals with technical expertise in the areas of instructional design, computer-based training, and video production.

Social work practice in rural areas calls for adaptation and attention to contextual factors. According to Horner and O'Neill (1981), these factors include: greater geographic distances to travel to clients, social structures and power bases different from urban areas, scarcity of formal resources, sense of powerlessness over policies made in urban centers, high visibility of social workers, professional and social isolation, and extended role demands. The complicated nature of providing services in rural environments makes specialization and professional development difficult. Contextual factors mentioned earlier, such as scarcity of local resources, lack of access to professional tools and materials, and limited availability of alternatives for professional development, emphasize the need for continuing in-service training and staff development for rural social workers. Distance education has emerged as a method to address the accessibility issues involved in providing continuing education for rural social workers.

Distance education includes print-based media, such as correspondence courses, and technology-based instruction including interactive video and computer technologies. Outside experts are linked to local communities that may be a great distance away. Distance education accommodates training that is practical and related to the trainee's job requirements. Because it is field-based, it can reduce or eliminate the need to commute to a centralized training site, and it greatly improves the accessibility of training to personnel in rural communities. Opportunities are provided through distance education that allow rural social workers to upgrade their skills when more conventional forms of continuing education are not available to them and offers flexibility in organizing and offering training experiences for local offices (Knapczyk, 1991).

Building Family Foundations

Distance education, with its heavy reliance on technology, requires the expertise of a variety of professionals to develop successful programs. A multidisciplinary team of professionals developed "Building Family Foundations" (BFF) to address the continuing education needs of child welfare workers in rural Kansas. BFF consists of ten multimedia, interactive, computer-based instruction modules that focus on child welfare issues in generalist social work practice. Table 1, "Building Family Foundations Modules and Content Areas," indicates the topic and content areas of each module. These modules, designed by social workers, special educational professionals, and computer technicians, provide individualized staff development that is based on specific social worker competencies, adult education principles, and the advantages of interactive multimedia (Thurston, Verschelden & Denning, 1996).

A. Elizabeth Cauble is Assistant Professor, Department of Sociology, Anthropology, and Social Work, Kansas State University, Manhattan, KS 66506-4003. Janice M. Dinkel is Associate Professor, Department of Sociology, Anthropology, and Social Work, Kansas State University, Manhattan, KS 66505.

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Table 1

Building Family Foundations Modules and Content Areas

Child Development

- normal development—development at risk
- developmental disabilities and delays
- assessment

Professional Development

- ethical decision-making—work system survival skills

Stress Management

- time management—organizational skills
- preventing burnout and brownout—assessing stress

Family Issues

- families from other cultures—blended and recon stituted families
- gay and lesbian families
- family members with disabilities

Family-Based Treatment Strategies

- family assessment—ecobehavioral approaches
- family strategies for child management - improving parent-child relationships
- teaching, motivating, and supporting parents

Social Workers in Court

- role of justice system in child welfare—preparing for court
- testifying in court—writing court reports
- understanding the law—role of social worker in the legal system
- roles, responsibilities, and goals of key player

Child Abuse and Neglect

- indicators of physical, sexual, and emotional abuse
- indicators of neglect
- situational, environmental, and cultural factors
- family strengths perspective
- separation and attachment issues

Practice Skills I

- basic interviewing skills—interviewing children
- writing case records and reports

Practice Skills II

- dealing with resistant/hostile clients mediation and negotiation
- collaborative problem solving

Adolescents

- adolescent development—treatment/management methods
- finding and maintaining placement —independent living
- adolescent sexuality issues
- juvenile offenders

Note - From "Using interactive multi-media to address rural social work education needs," by L. Thurston, C. Verschelden & J. Denning, 1996, Tulane Studies in Social Welfare (p.35). Copyright, 1996 by Tulane University, School of Social Work. Reprinted with permission.

The First Phase

The training project began with a statewide assessment of child welfare worker training needs, using a focus group method (Denning & Verschelden, 1993). Focus group sessions were conducted in six discrete segments: brainstorming topics about which workers needed more training; organizing topics into units of training or modules; establishing priorities within each module, according to perceived needs for training; discussing training delivery methods; demonstrating multimedia, interactive, computer-based training technology; and evaluating the focus group training session. Major differences were found in the ways continuing education was delivered to rural and urban child welfare workers. Traditional methods of delivery, such as workshops and courses, were largely inaccessible to those in the more rural parts of the state. The lack of timeliness of content and the distance required to travel to training were factors that seriously interfered with the social workers' access to training.

The focus groups expressed interest in alternative staff development strategies, including multimedia instruction, which has the capacity to meet the educational needs of rural social workers and reduce the problems of timeliness and travel. The benefits of interactive multimedia instruction are many. It is appropriate for learners at all levels of technical sophistication and content expertise. It provides a private, nonjudgmental learning environment where the learners control the pace, can back up, repeat, ask for further assistance, and receive objective, non-intrusive feedback (Lynch, 1992). Because the interactive multimedia program is nonlinear, the learner can explore the content and create individualized paths. Learners also can control the duration of the programming for the attention span and available time of the learning experience. These benefits constitute an environment free from the eyes and ears of peers, supervisors, and the training leader. For many, this is a more comfortable learning situation than traditional continuing education models. The team demonstrated multimedia education during the focus groups and found a considerable degree of interest among the child welfare workers for this type of training.

After the assessment of training needs, the next phase in the project was the compilation of the data from the focus groups. Ten topic-clusters were refined into content areas with groups of sub-topics under each. A set of competencies, stated as learning objectives, was established for each of the modules. The state adopted the Child Welfare Competencies from the Institute for Human Services (Hughes & Rycus, 1994). Those competencies related to the results of the statewide assessment were selected from the Institute's list.

The Multidisciplinary Team

The subsequent development and production of the multimedia training modules were multidisciplinary, collaborative processes. The key members of the production team for each module were: Subject Matter Expert (SME), Instructional Designer (ID), Computer Programmer, and Graphic Designer. The SME is someone who has expertise in the content area. For BFF the SMEs were social work and special education professors. In addition, there was a video production team, which included camera operators, producers, directors, and editors. The development of a strong team of experts, and the collaborative work of the development and production teams were critical to the successful outcome of the project.

After the competencies were selected for a module and stated in terms of learning objectives, the SME gathered information, developed an outline for the content, and wrote the module script. The work of the SME included the identification and recruitment of professional colleagues to write specific sections of the module content. For instance, a school social worker was asked to write a section on the collaborative process between the school and SRS in the case of a learning disabled child who was in the custody of the state. A social worker in a women's shelter was asked to contribute a section on domestic violence. The responsibility of the

SME was to compile the content information to be included in the module. The SME was ultimately responsible for all module content and assuring that the content was presented in a way understandable to the learner.

The responsibility of the ID was to use his or her knowledge of multimedia instruction and adult learning to construct the most effective way to relate the content to the learner. The first step was to draw a "concept map," a navigation tool that graphically describes how the learner will move through the various segments of the module. The ID determined the best mode of delivery for each aspect of the content, such as text on the computer screen, a video segment, illustrations, computer graphics or animation, or a combination of any of those modes. The next step was the development of the multimedia "script," a detailed description of what happens with audio, video, and computer text, from start to finish, within the module. Then, using the multimedia script, the Programmer and the Graphic Designer became integral parts of the team. Meetings were held to review the script and to decide how the various team members would handle each segment. This collaborative effort on the script was of crucial importance because the script drives the production of the module. The audio and video production team shot and edited segments from the script to a videotape. After editing, this tape was pressed onto a first-draft videodisk called a "check disk." All of the audio and video segments were on the videodisk and computer text, graphics, computer animation, and the actual computer program remained on the computer. The check disk was used during alpha testing. Alpha testing is a process of error detection and correction that was done by the programmer with the assistance of other team members. The check disk was then used for beta testing, in which students and social workers completed the module, gave feedback, and helped identify problems with the content or delivery of the material. Modifications were then made to the module based on the input from beta testing. When this testing process was complete, the "master disk" was pressed and multiple copies were made. With current technology, a computer disc could be substituted for the videodisk, which requires a laser disk player to use.

A videodisk, computer disk, and workbook make up each module of "Building Family Foundations." They were distributed to local offices of the state social services agency. The workbook contains one section for each module. Every module has a glossary of key terms and concepts that will be accessible also on the computer screen. Other workbook pages include such items as child growth charts (Child Development), summaries of child welfare laws (Social Workers in Court), and parent checklist for child management techniques (Family-Based Treatment Strategies).

Challenges of the Multidisciplinary Team: What We Learned

Examination of the multidisciplinary team's experiences in the development of this training program allows us to ponder how we might have done it better and contributes to the growing body of knowledge about teamwork. Dettmer, Dyck and Thurston (1996) provide an example of one model of collaboration and teamwork. In retrospect, it would have been to our benefit to apply such a model to our process. Traditionally, social workers have participated on multidisciplinary teams primarily composed of members from the helping professions. The multidisciplinary team that created BFF was led by three university faculty members: one from special education and two from social work. This team was comprised of professionals from disciplines that have not traditionally worked together, i.e., social workers, special education educators, computer programmers, graphic designers, and video production specialists. Problems arose related to the shared leadership and composition of the team. These issues are addressed in this section and illustrate that the intentional use of social work methods could have prevented some problems and expedited the solution of others.

The Complexity of Multimedia Instructional Design

The transition from delivering social work knowledge and skills in the classroom setting to teaching through technology was difficult and proved to be challenging for all involved. When compared to traditional instructional methods, the development of interactive multimedia programs is complex, labor-intensive, and expensive. However, with use of the program over time, the overall expenses compare favorably with more traditional continuing education programs. Working within the university setting reduced some of the expenses. Educational technology graduate students from the College of Education were employed as instructional designers and programmers instead of full-time professionals. Another advantage of the university setting was the availability of resources, including faculty with expertise in a variety of fields, students who are available to do research and other necessary activities, and libraries. On the other hand, the issues of dual role, and relationships inherent in a university setting, sometimes resulted in difficulty. For example, the situation where faculty of instructional design courses were also responsible for the supervision of students while they were working as staff on the project created confusion for students. They often felt demands were unreasonable and were concerned that if they voiced this it would negatively affect their class grade. Students, as well as faculty, have many responsibilities in addition to those necessitated by their roles on the project. At times, competing obligations of all involved complicated and prolonged the production phase of the project.

Shared Leadership Issues

The BFF project leadership was shared among three Kansas State University faculty, two from social work, and one from special education. This triumvirate reflected the egalitarian values of the women who developed the project and acquired support from the funding agency. In theory, this shared leadership style should provide flexibility, blending of individual strengths to make a stronger project, and maximize staff exposure to individual leadership styles. In reality, staff became increasingly anxious because they were unsure who had the final say. Further, decision making became laborious and time-consuming, as all decisions were processed among the three leaders. Since each of the leaders had multiple responsibilities outside of the project, meetings and decisions did not occur in a timely manner.

Collaboration Challenges Across Disciplines

Collaboration between the departments of special education and the social work program was both rewarding and difficult. The integration of knowledge from the fields of education and social work is exciting and holds promise for the development of training curricula that can help the state meet its large and ongoing demand for continuing social work education. However, such interdisciplinary work requires the resources necessary for processing issues that arise due to differences in perspective. A great deal of time was spent on educating each other about how each discipline viewed a particular issue. For example, terminology, procedures, and a practice framework, constitute a certain "culture of helping" that social workers commonly understand. The professionals from other disciplines had to be socialized into this culture in order for them to relate to the content and present it in a meaningful way to social work learners. While this type of collaboration is rewarding, the time required to accomplish it successfully should not be underestimated.

Professional Language Issues

Bringing together professionals from varied disciplines and backgrounds to create a successful project requires that a common working language evolve. To assume that team members, because they all are based in the university and desire a good product, understand each other and share common goals is, to say the least, naive. Just as social workers must strive to form a language link with clients, the team must learn how to bridge communication barriers. Like social work, all professions and technical trades have informal language or jargon. Much misunderstanding could have been prevented if a "session" devoted entirely to the various professional languages had been held. Giving each other permission not always to understand the jargon would have increased our tolerance for language confusion. We, on the other hand, struggled to learn as we moved through the process and frequent confusion.

An example of the language bewilderment surfaced when we began videotaping. Video production staff uses the word "tape" when they are referring to the video recording process. Others referred to this as "filming." A mistake as seemingly benign as this resulted in continuous confusion among team members. Misunderstandings also arose because staff spoke about something using their professional jargon and others would not understand what was wanted or needed. Instructional designers frequently asked subject matter experts (social work and special education faculty), "What do you want this to look like?" Inherent in the question was the assumption that the writers knew what the possibilities were, when, in fact, they had little knowledge of what was possible.

The absence of shared language also created tremendous challenges for the supervision of staff by the project administrators (social work and special education faculty). Unable to understand their language, administrators had difficulty with accountability and offering guidance to the technical production staff. The credibility of administrators was a central issue during the first year of the project. Members of the staff were incredulous when their "bosses" responded to their many questions with, "I don't know" or "I don't understand what you are talking about." The production team members struggled with administration's obvious lack of knowledge and experience in their areas of expertise. Simply stated, it is hard to supervise someone when you know very little, if anything, about what he/she do and can accomplish. It was both difficult to evaluate employees' job performances and to offer appropriate encouragement and meaningful feedback. Setting realistic time lines was also difficult, because administrators did not understand how long it might take to accomplish a task. This became less of a problem as staff learned that this project was the first of its kind and that there was no model to follow. It was critical that we educated one another about our respective disciplines. A sense of "We're all in this boat together" emerged as we learned that we were breaking new ground. Empathy for each discipline's struggles developed and created a more tolerant work environment.

Value Differences Among the Professions

Just as found in traditional social work practice, ethical dilemmas arose. Resolution was complicated by the involvement of multiple disciplines, including those from non-helping fields, in the decision-making process. Social workers have a Code of Ethics (1996) that both differentiates us from other professions and creates our code of conduct. Because this project was developed by and for social workers, the NASW Code of Ethics (1996) guided the decision-making process. As professional social workers, we were clear about our need to protect the identity of anyone whose "story" was told in the material for the modules. The local SRS offices produced case histories and carefully concealed and/or changed any identifying information about clients. Difficulty arose during production of the Family Issues module. Of utmost concern for the social workers on the team was

how to use real-life "client" stories without exploiting former clients. The production team wanted to tape testimonials from members of real-life, gay/lesbian, single-parent, and the other family types being featured in the module. They insisted that, if the families gave informed consent, understood the project, and were made fully aware of the scope of the viewing audience, former clients and "real-life" families should be used in the module. As professional social workers, we believed it was our responsibility to protect the identities of these families, even if they agreed to participate. We felt strongly that the potential negative repercussions from "telling one's story" to thousands of unseen viewers greatly outweighed the benefits. We conceded that we were quite possibly being overly cautious, but believed that our obligation was to keep our clients' identities confidential and decided to conceal the families' identities. In doing so, we disappointed the team whose understanding of our ethical standards was limited and whose creativity we stifled by our seemingly "rigid" stance.

Differences in Theoretical Orientation

Multidisciplinary collaboration greatly enhanced the scope and content of this training program. The special education input provided material that, as social work educators, we may not have included. The behavioral theoretical orientation of our special education colleague enabled us to include segments on parenting skills that were rich with examples from her work with parents and classroom teachers.

As social workers, our perspectives on change, and how we view client problems, differed from that of our behaviorist colleague. While her inclination was to assess problems primarily in terms of behavioral theory (Dettmer, et al., 1996), ours was inclusive of social, cultural, and other systems interfacing with the individual and family (Hartman & Laird, 1983). Challenges arose when we co-authored modules and had to integrate "our way" of looking at problems and resolutions with a perspective that, while not foreign or unappealing to us, was not the "lens" through which we view the world. At any time, we could have demanded that only the social work perspective be the focus. We opted to include our special education colleague's approach to some issues. This integration maximizes learning opportunities for social workers, including developing skills to work with the school system. After much discussion, mutual respect for the value of both perspectives to train social workers developed. These sessions were intellectually stimulating and necessary for resolution of issues impeding the progress of the project.

Sensitivity to Material

Production of the child abuse module illustrated differences in orientation and sensitivity among the production team members. Slides showing various types of child abuse were obtained from the American Pediatric Association. These were photographs of injuries to children. The purpose was to help child welfare workers identify and differentiate those injuries that are caused by accidents from those that are indicators of child abuse. As social workers, we are sensitized to these graphic depictions of injuries to children and, while not pleasant, we are able to respond to them with some degree of objectivity. This was not true of our production team. They were having difficulty with the graphic nature of these slides, some saying that they were having dreams about the pictures of the children who suffered these injuries. Conflict emerged when the instructional designers and programmers insisted that these pictures be quite small on the computer screen so as not to upset the learner (child welfare worker using the module). We insisted that the slides needed to be as large as technology would allow in order to help the workers learn about the different types of injuries. Compromise was accomplished by using a screen that informed the learners that they would be viewing potentially disturbing material and that they could move to another screen at their own discretion. From this experience, we realized that material which child welfare social workers are accustomed to seeing is often upsetting to the lay person who has not been sensitized to the

subject matter. Sensitizing the entire staff to this difficult material would have been very helpful and perhaps prevented discomfort among the team and the delays that resulted.

Special Interests of Each Discipline

Each profession has a standard of excellence. Accommodating these standards among professions was challenging. For example, conflict developed when we, as social workers, evaluated the quality of the videotaping. We were content with less attention to detail than were our professional video production team members. They wanted a "perfect" product, not unlike any that they would produce for a television program. We, on the other hand, cared less about lighting and wardrobe than we cared about the dialogue being taped. Particularly memorable was one taping session during which fifteen (so it seemed!) minutes were spent on one of the talent's (jargon for people appearing in the video) earrings. The video production staff was concerned about light reflection from the earring and worked to correct it. While this was a reasonable concern from their perspective, others of us tired of the attention to detail. It not only felt cumbersome, but studio time is charged by the minute and this was expensive. It was difficult to justify the expense for this activity when we did not value it. Both sides were frustrated as we considered how to proceed without compromising the standards of any discipline involved. It is difficult and can be inappropriate to ask people to lower their professional standards.

The production of the Social Work Skills modules is a good illustration of competing professional agendas. The video production team believed that a script should be used for all scenes. This approach worked well for most of the modules and involved using a Teleprompter. The Social Work Skills modules feature interviewing scenes during which the social worker interacts with clients and demonstrates specific skills, such as reflection, empathy, active listening, etc. We believed that to best demonstrate these skills the cast should be comprised of a professional social worker and actors (talents) who played family roles. In this way, the family could role-play while the social worker responded to them spontaneously. Video production staff doubted the ability of social workers to respond without a written script and believed that it would increase production time and costs. We eventually convinced the team that our instruction in the classroom prepared social workers to interact with the actors without a prepared script. This approach was successful and added to our credibility as part of the team and created a new respect for the social work profession.

Conclusions and Recommendations

The future of continuing education for social workers in rural areas looks bright, given the benefits offered by new technologies. If the success we have seen so far continues, multimedia interactive programs can be made readily available to the rural professional in a variety of fields. This methodology can overcome many of rural service delivery's common challenges, e.g., lack of specialists and lack of access to professional tools and materials, identified by Merell, Pratt, Forbush, Jentzsh, Nelson, Odell and Smith (1994). The technology and expertise are available to achieve advanced levels of continuing education for all professionals no matter their location. However, challenges exist when transferring knowledge and skills training from traditional continuing education settings to a multimedia format of instruction. The development of the Building Family Foundations project and the subsequent evaluation of the process highlights the challenges working with a multidisciplinary team to create multimedia interactive training.

Consciously applying social work practice methods during the planning and development of a project using a multidisciplinary team is recommended. The problems encountered in the development of BFF parallel those in the helping process and could have been predicted and planned for had social work methods consciously been used. Social workers are familiar with the need to carefully plan their interactions with clients. It is expected that workers may have significant "differences" with clients, whether the differences are social, racial, ethnic, gender, or, in this case, professional. Social workers accept the responsibility of bridging differences and adjusting their language to communicate effectively with clients. Similarly, in planning a project using a multidisciplinary team, differences in language, values, and standards must be anticipated. A plan to mediate these differences would include initial sensitivity training, including education about each discipline's language and area of expertise in the project.

Social workers typically contract with clients as to the goals of the helping process and delineate the roles and responsibilities of each participant. Similarly, when working with a multidisciplinary team, clear roles must be established before the work is begun. Especially critical is that someone is designated as the leader even though the concept of "team" connotes an egalitarian effort. Sharing administrative authority is frought with difficulties and sometimes can lead to no one being responsible for the work's getting done. We suggest that one person on the team be designated as the overall head, regardless of specific needs within each discipline.

Working with a multidisciplinary team requires that a significant amount of time be allotted for the processing of issues related to value and theoretical differences among team members. Social workers providing direct services to clients understand the need to work continually on rapport and "building the relationship" in order to accomplish the clients' goals. Skipping this phase of the process when working with a team will result in barriers that impede the progress of the project, much like it would hinder clients in working toward their goals.

Although we had periods of floundering, the evaluation of BFF has resulted in enthusiasm for the future use of interactive multimedia instruction to meet social workers' continuing education needs. When working with a multidisciplinary team, the authors suggest that social work practice methods be consciously employed in all phases of the project. Application of these practice methods will maximize the efficiency of the multidisciplinary team and facilitate the production of an effective continuing education program.

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