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Early Intervention Program Practices That Support Collaboration

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artnerships between parents of infants and toddlers with special needs and their service coordinators are developed within the context of early intervention program practices that can either support or hinder effective collaboration. The purpose of this study was to explore parents' and service coordinators' perceptions of program practices that affected collaboration. A qualitative analysis of responses to open-ended survey questions from 397 parents and 226 service coordinators yielded five categories and two subcategories related to (a) program philosophy and climate, (b) service delivery (including options for service delivery), (c) teaming approaches, (d) administrative policies and practices (including quality of program personnel), and (e) community context. This research has important implications for early intervention administrators who wish to design and deliver quality services to infants and toddlers with special needs and their families.

Early intervention (EI) programs play a vital role in the lives of families of infants and toddlers with special needs. In these programs, families are eligible to receive a range of services to meet their identified needs, priorities, and concerns. EI programs are, by nature, programs that deliver comprehensive services, usually in a variety of ways. For example, EI programs provide direct therapeutic and developmental services to children through center-based playgroups or home visits or through consultation to community-based early education and care programs (Karabinos, 1997). EI programs also provide services to parents that help them identify and mobilize a range of community resources necessary to meet family needs and enhance family functions (Trivette, Dunst, & Deal, 1997). One of the major activities offered by EI programs is service coordination.

Service coordination is a mandated activity of EI programs, although its implementation varies across programs (Whitehead, 1996). For example, some EI programs offer service coordination for services offered within a single agency, whereas other EI programs provide service coordination that focuses on all services received by family members regardless of the agency serving them. Service coordinators have the complex task of ensuring that families receive all services to which they are entitled. Whitehead described service coordination as a

"fluid, proactive process" (p. 210), a description that fittingly reflects the rapidly changing needs of families.

Effective EI services are provided in the context of a collaborative relationship between family members and the professionals with whom they interact. Collaboration is defined as a style of working together that reflects "cooperation among two or more people concerning a particular undertaking" (Dunst & Paget, 1991, p. 28). In a collaborative relationship, parents are viewed as the key decision makers for their children and are regarded as partners in the delivery of EI services to their families. Collaborative relationships, or partnerships between parents and service coordinators, are highly valued (Cornwell & Korteland, 1997; Zipper, Hinton, Weil, & Rounds, 1993). Cornwell and Korteland described the characteristics of a partnership including high levels of mutual acceptance, respect, openness, trust, and shared responsibility. Furthermore, partners in a collaborative relationship are effective communicators, have the ability to negotiate, and have an implicit understanding of who maintains final decision-making authority within the relationship. Such relationships form the context in which EI services are provided (Kalmanson & Seligman, 1992). Researchers and practitioners have become interested in examining the variables that support these collaborative relationships (e.g., Dinnebeil, Fox, & Rule, 1998; Dinne-

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beil, Hale, & Rule, 1996; Dinnebeil & Rule, 1994; Dunst, Johanson, Rounds, Trivette, & Hamby, 1992). Variables of interest have included characteristics, skills, or behaviors that individuals bring to the relationship. Researchers have discussed the importance of effective communication styles, including attending skills and follow-through behaviors, values and beliefs that guide partners' actions, personality characteristics such as enthusiasm and friendliness, and levels of knowledge and expertise.

In previous research, we have focused on the relationship between parents and service coordinators (Dinnebeil, Fox, & Rule, 1998; Dinnebeil, Hale, & Rule, 1996; Dinnebeil & Rule, 1994). We have found that parents and service coordinators value the communication and other interpersonal skills that both partners bring to a relationship. It is also important that professionals' actions reflect a family-centered approach to coordination. That is, parents and service coordinators regard service coordinators' attitudes towards parents as highly important. Attitudes that were identified as important include a basic concern for the family, an appreciation of the parent as a full team member, and an emphasis on family strengths. It is clear from our research, as well as from that of others (e.g., McWilliam et al., 1995; Tocci, McWilliam, Sideris, & Melton, 1997), that relationships between parents and service coordinators are enhanced when both are skilled communicators who are sensitive to and respectful of each other's needs.

Systematic investigation of the kinds of program variables or characteristics that either support or detract from collaborative relationships between parents and service coordinators is lacking from research on collaboration. Although personal characteristics, beliefs, and skills of persons engaged in collaborative relationships represent the variables that are most closely related to successful collaborations, these relationships are also affected by the policies, procedures, and service delivery models offered by the EI program (Hebbeler, 1997). For example, to what degree is successful collaboration affected by service site (i.e., center-based as opposed to home-based services)? How does the size of the service coordinator's caseload influence collaboration? Are collaborative relationships affected by the degree of support provided to the service coordinator by the program administrator? If program administrators value collaborative relationships between parents and service coordinators, the answers to these questions have important implications for service delivery models. In addition to identifying the specific program practices that support or hinder collaboration, it is also important to assess the degree to which different kinds of program variables influence collaboration from the perspectives of parents and service coordinators. What factors, if any, do parents and service coordinators who have experienced EI ser-

vices identify that may promote or hinder collaboration? The current study reports a qualitative analysis of responses to two questions posed to parents and service coordinators:

- Is there anything about the way your early intervention program works that helps collaboration between you and the service coordinator (or parent) with whom you work? and
- Is there anything about the way your early intervention program works that interferes with collaboration between you and the parent (or service coordinator) with whom you work?

These two questions were part of a more comprehensive questionnaire assessing parents' and service coordinators' perceptions of variables that support and detract from collaborative relationships between service coordinators and parents of infants and toddlers with disabilities. Collaboration was defined for participants as "the way people work together as partners." Parent respondents were asked to think about their current and past service coordinators. Service coordinator respondents were asked to think about parents with whom they worked.

METHOD

Sampling Procedures

We contacted administrators in more than 100 EI programs suggested by members of an expert panel. Sixty-five administrators from across the nation agreed to distribute the questionnaire. They also indicated how many families their agency served and how many service coordinators the agency employed.

Selection of Potential Survey Respondents

Potential survey respondents were randomly selected with the assistance of EI program administrators who agreed to distribute the questionnaire. We targeted 20% of the families from each program as potential survey respondents. Using a table of random numbers, we selected enough numbers to represent 20% of a program's total enrollment and asked program administrators to match these random numbers to mothers and fathers on their enrollment list. For example, if a program served 200 families, administrators received a list of 40 random numbers (between 1 and 40). Administrators then used these numbers to identify 40 parents whose families were on the program's enrollment list. The term "mother" or "father" was not defined for the program administrator. Using this procedure, we identified 1,134 parents as potential respondents.

The same procedure was followed to randomly select service coordinators. If a program employed 20 service coordinators, we randomly selected two numbers between 1 and 20 and asked administrators to match those two numbers with persons on their list of professionals employed by the program who served as service coordinators. We identified 334 service coordinators as potential survey respondents.

Questionnaire Development

The questionnaire consisted of (a) a section requesting demographic information, (b) 78 closed-ended statements that reflected variables associated with collaborative relationships, and (c) four open-ended questions. The 78 closed-ended statements were derived from results of individual interviews with parents and service coordinators in one state and questionnaire responses from experts from across the nation. The open-ended questions addressed variables that might affect collaboration between parents and service coordinators. The first two open-ended questions focused on specific knowledge, skills, values, or attitudes that parents and service coordinators bring to a relationship that affected collaboration. The other two questions were the focus of this investigation. They were, "Was there anything about the way your early intervention program worked that helped collaboration between you and the service coordinator (or parent) with whom you work?" and "Was there anything about the way your early intervention program worked that interfered with collaboration between you and the parents (or service coordinator) with whom you work?" We developed two forms of the questionnaire, one for parents and one for service coordinators. These forms differed only in the demographic information requested from respondents (see Note).

We field-tested the questionnaire with 25 paid participants from three groups consisting of colleagues, members of the expert panel, parents of young children with disabilities involved with a service coordinator, and service coordinators. Parents and service coordinators were systematically selected to represent various ethnic and socioeconomic backgrounds. We revised the questionnaire based on each group's feedback.

Questionnaire Distribution

Questionnaires were distributed to parents and service coordinators indirectly through the targeted EI programs; however, respondents were asked to return surveys directly to the first author via postage-paid return envelopes. We sent out three mailings to potential participants: (a) an initial mailing containing a questionnaire, introductory materials, and a return envelope; (b) a follow-up reminder letter mailed 3 weeks after the initial mailing; and (c) a second follow-up letter, replacement questionnaire, and postage-paid return envelope mailed 5 weeks after the initial mailing. All correspondence to respondents was in the families' primary language (English or Spanish). Initial mailings were sent to the program administrators who distributed them to the appropriate parent or service coordinator. To permit follow-up of nonrespondents, program administrators were asked to keep track of whom they had sent the questionnaire using a master list of respondents' identification numbers provided by the first author.

Data Analysis

Content analysis procedures were used to analyze the written responses to the open-ended questions. Content analysis of such responses allows "an insight into attitudes, opinions, and personal viewpoints" of stakeholders (Johnson & LaMontagne, 1993, p. 74). As a first step in the analysis, two of us read approximately half the responses and developed potential categories or themes. Based on this initial reading, tentative categories for coding responses and a working definition for each category were created. Both descriptive or first-level codes as well as more abstract, second-level codes (Miles & Huberman, 1994) emerged at this initial stage. Cue words and phrases denoting inclusivity (or exclusivity) were recorded to help define and delineate each of the categories (Johnson & LaMontagne, 1993). Then, each response was coded according to the categories established. In most instances, an individual response was coded as reflecting a single category, but the free-flowing nature of the open-ended response format meant that some responses could not be coded as a single unit. These responses were further divided into smaller units, and each unit was coded according to the category it best represented. Approximately 10% of the responses were ambiguous or did not focus on the question at hand and were omitted from the final analysis. For example, some of the parents' responses referred to the nature of their relationship with their individual service coordinator, which was the focus of the preceding two questions, rather than to aspects of the EI program.

The analysis proceeded using the constant comparative method described by Glaser and Strauss (1967), whereby the categories were continually refined in a step-by-step process, with the coders constantly comparing and rechecking with each other to ensure that their interpretations remained close to the data. The development of a working data display to assist in the analysis (Miles & Huberman, 1994), in which the categories and codes are identified and revised based on key words and phrases, was an important step in further informing and refining the emerging categories. As a model to conceptualize the data gradually evolved, so did the categories
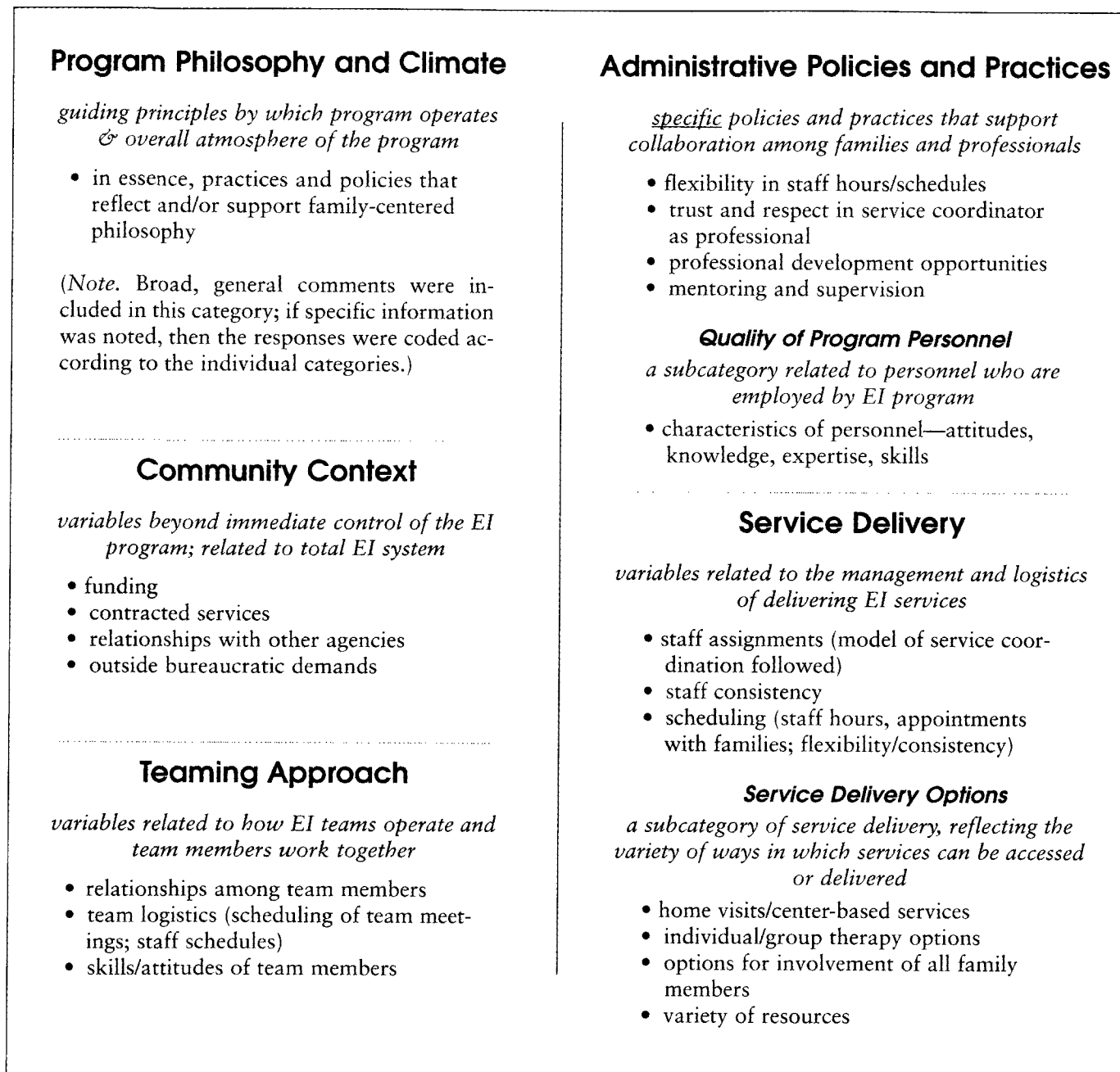
Program Philosophy and Climate

guiding principles by which program operates & overall atmosphere of the program

- in essence, practices and policies that reflect and/or support family-centered philosophy

(*Note*. Broad, general comments were included in this category; if specific information was noted, then the responses were coded according to the individual categories.)

Community Context

variables beyond immediate control of the EI program; related to total EI system

- funding
- contracted services
- relationships with other agencies
- outside bureaucratic demands

Teaming Approach

variables related to how EI teams operate and team members work together

- relationships among team members
- team logistics (scheduling of team meetings; staff schedules)
- skills/attitudes of team members

Administrative Policies and Practices

specific policies and practices that support collaboration among families and professionals

- flexibility in staff hours/schedules
- trust and respect in service coordinator as professional
- professional development opportunities
- mentoring and supervision

Quality of Program Personnel

a subcategory related to personnel who are employed by EI program

- characteristics of personnel—attitudes, knowledge, expertise, skills

Service Delivery

variables related to the management and logistics of delivering EI services

- staff assignments (model of service coordination followed)
- staff consistency
- scheduling (staff hours, appointments with families; flexibility/consistency)

Service Delivery Options

a subcategory of service delivery, reflecting the variety of ways in which services can be accessed or delivered

- home visits/center-based services
- individual/group therapy options
- options for involvement of all family members
- variety of resources

FIGURE 1. Categories and codes used in data analysis.
Note. The bulleted items are the codes.

that best represented the data. The final data display is presented in Figure 1.

The final step in the analysis involved tallying the coded responses according to the categories they represented. This process enabled the relative frequencies of responses for each of the categories to be established. Finally, the responses of parents and service coordinators were separated in order to examine the extent to which their respective perspectives were similar or different.

Credibility, Dependability, and Intercoder Agreement

Systematic and detailed descriptions of the data analysis process and the establishment of an acceptable level of intercoder agreement served as the primary methods of assuring rigor and integrity of the data. Responses from parents and service coordinators, both of whom provided valuable information enabling their differing per-

spectives about program practices to be examined, also contributed to the integrity of the data. The data analysis procedures have been described earlier in the Results section. To establish category integrity (Johnson & LaMontagne, 1993) at each stage of the coding process, the coders independently coded 20% of the responses and then rechecked with each other to define or redefine categories to ensure that the data remained key to the analysis. Analysis did not proceed until an acceptable level of intercoder agreement was reached at each stage. Discrepancies were discussed and negotiated until a clearer definition was reached. This process continued until the final categories were decided on. As mentioned previously, the coders constantly compared their perceptions and interpretations to guard against bias in the analysis and interpretation. For the overall analysis, intercoder agreement among the two coders was established at 87%, which is considered acceptable for qualitative research (Johnson & LaMontagne, 1993). The third author also reviewed the analysis and provided feedback.

RESULTS

Geographic Location and Demographics of Respondents

Of the 1,134 parents who were potential respondents, 397 (35%) returned surveys. Also, 226 (65%) of the 334 service coordinators returned questionnaires. The total number of respondents was 623, a 42% return rate. Respondents lived in the following geographic areas of the United States: Northeast, 22% parents, 17% service coordinators; Mid-Atlantic, 12% parents, 13% service coordinators; Southeast, 0.008% parents, 1% service coordinators; Midsouth, 0.003% parents, 0.004% service coordinators; Midwest, 27% parents, 10% service coordinators; Mountain, 10% parents, 20% service coordinators; Southwest, 19% parents, 30% service coordinators; California, 3% parents, 2% service coordinators; and Northwest, 6% parents, 6% service coordinators.

The majority of parents were White (76%), were at least high school graduates (94%), and were married. Their average age was 32 years and their average length of enrollment in an early intervention program was 15 months. More than one third of parent respondents (34%) reported having visits with their service coordinator 4 times per month. The majority of service coordinators were White (86%) and had served as a service coordinator for an average of 5 years. Almost half of all service coordinator respondents (46%) reported holding either a bachelor's or a master's degree in a field related to early intervention, and 39% reported holding either a bachelor's or a master's degree in a field unre-

lated to early intervention. The average number of families served by service coordinator respondents was 17 (with a range from 0 to 90 families), and 38% reported seeing families on average 4 times per month.

Results of Content Analysis

Five major categories and two subcategories emerged from the comments of the respondents related to practices and policies of their specific EI program that influenced collaboration between parents and service coordinators. These categories and codes are presented in Figure 1. The development and definition of these categories are described in detail in the following section.

Program Climate and Philosophy. This category is considered central or overarching in nature, because it reflects the overall manner in which a program operates and is perceived by the parents and staff. Many responses from parents and service coordinators pointed to the program's philosophy as influencing collaboration. The comments of parents and service coordinators that fell in this category were made only in reference to issues that *enhanced* collaboration. Both sets of respondents were likely to be more specific when things did not go well, and such comments were coded into other categories.

The family-centered philosophy of one program was evident from the comment of a service coordinator who wrote, "We are parent/family friendly. We accept their lifestyles and needs without making judgments. We truly believe in the 'family' in the IFSP [Individualized Family Service Plan]." Responses indicated that the philosophy and principles that guide a program are reflected in its climate. Comments from parents and service coordinators revealed the importance of the program climate. One mother summed up this perspective as she talked about how everyone was involved and worked together: "There are the people, parents, children; [with everyone] helping each other, being kind, considerate, and thoughtful of all and others." Another parent noted, "the time and interest they [all] have in the entire family makes it easier to deal with the problems."

If program personnel truly believe in collaboration and working with families, their behaviors as administrators, individuals, and team members, and the manner in which their programs are organized and operated, will send a message that reflects these basic principles and philosophies. This belief will be translated in the characteristics of the personnel who are hired and in the support and respect that administrators give their staff, all of which affect the individual relationship established with each family. Specific categories pertinent to these emerged from the data and are addressed in detail in the following sections.

Service Delivery. The manner in which EI services are provided to children and families emerged as a major category. Management and delivery of services, ranging from staffing and scheduling of programs (i.e., logistics) to the variety of options made available to and developed with families, are included in this category.

In terms of enhancing collaboration, one mother commented that staff scheduling enabled "our service providers [to] come separately one week and together another." The model of service coordination employed was frequently noted by both parents and service coordinators, as reflected in the comments of a service coordinator, "Having a primary teacher/therapist as your service coordinator ensures the service coordinator is aware of immediate changes in concerns for the family." Service coordinators who had infrequent contact with families were seen as less helpful. The importance (or lack thereof) of a "special person" with whom the family could communicate and see regularly was noted frequently. Along this line, a number of responses referred positively to how programs tried to match service coordinators and families in terms of needs and personality, rather than assigning the "next available person." Lack of consistency in staffing was noted as a factor that detracted from collaboration, especially by parents.

"Flexibility" was the oft-quoted, succinct response from parents and service coordinators in reply to the question, "What supported collaborative relationships between parents and service coordinators?" The importance of flexibility in scheduling and service location was mentioned frequently. For example, one mother spoke of the "flexibility between home- and center-based [visits];" a father noted, "they visit my child at day care and at home." Flexibility in scheduling visits around parents' work hours and children's needs was often mentioned. It seems, however, that a balance between flexibility and consistency must be achieved. A father felt that the "irregular schedule of appointments" interfered with collaboration, and one mother noted that scheduling appointments conflicted with her child's need for a consistent daily schedule. For one father, the consistency of scheduling enhanced collaboration. Having a range of communication options also enhanced flexibility (e.g., phone, pagers).

Service Delivery Options. Many responses referred to various ways that EI services for children and families were delivered and could be accessed. A large number of responses commended home visits, sending the strong message that home visiting is a critical component in enhancing collaboration. Both service coordinators and parents stressed the importance of "meeting families on their own turf" where "the mothers and fathers could also be relaxed and where it was more comfortable and natural for the children." As noted previously, choosing

from an array of services, and the location of service delivery, contributed to collaboration. Options for the use of resources were noted. For example, if home visits were unavailable or center-based services were offered, parents and service coordinators noted that the program's provision of transportation helped collaboration. Providing toys for parents to take home or leaving toys in the home also were mentioned.

An option for group or individual services and flexibility among these was considered important. One mother noted that "the one-on-one therapy is better than if it were a group session," whereas other parents appreciated that their child was able to participate in individual sessions at home and in play groups or small groups at a center. These group services gave parents opportunities to collaborate and be involved not only with other professionals and team members, but also with other parents. A number of parents expressed how helpful it was to participate in the programs at the center. One service coordinator responded that the "offer of groups and special events" for all family members was helpful in enabling families and professionals to meet and develop relationships on broader-based, social terms. A parent echoed this response, noting that a lack of such opportunities detracted from collaborative relationships. Finally, if collaboration is to be achieved, a basic principle is that parents and professionals be seen as equal partners. This is difficult, however, if, as one service coordinator noted, "families are not informed about all the options available to them." Another mother related an optimal experience; her program had not only made her family aware of all the services available, but had contacted her immediately after her baby was identified as having special needs.

Teaming Approach. As expected, given the nature of EI service delivery models, many comments referred to the respondents' roles and relationships as EI team members. Comments pertaining to the manner in which the EI teams operated and how team members worked together fell within this category. Working from a team model requires that program administrators develop and implement ways for team members to share information. For example, scheduling to permit the involvement of all team members was noted as important to building strong collaborative relationships. One service coordinator indicated that, in her program, team members "meet as a team once a week for progress meetings, MDT meetings, IFSP meetings, etc." A parent wrote that "open communication among all team members as well as between parents and other team members" was important. Furthermore, as a mother noted, "including parents in decision-making and including parents' ideas" is critical in enhancing collaboration. Successful collaboration also requires that "all team members and staff share resources

and information; we are not locked into roles and 'territorial' with services provision," according to a service coordinator. A parent spoke to the importance of "all team members being updated, consistent, and knowing the child well." It appears, however, that the concept of providing services from a transdisciplinary team perspective creates some difficulties for collaboration. As one service coordinator wrote, "some parents want individual OT, PT each week." However, in a comment relating to service delivery options, another parent expressed the view that the "team approach as well as the closeness of the one-on-one" was beneficial. The response of one of the fathers sums up how team members' roles and practices can contribute to collaboration: "I let the service coordinator know doctor's visits, etc., my child has had. I also ask [that] any reports from [the program] be sent to my pediatrician so we have a whole team approach."

Administrative Policies and Practices. An EI program's ability to provide services in a manner that enhances family/professional collaboration depends on the attitudes, skills, and abilities of the program personnel. However, the data revealed that it is equally important that these specialists, therapists, social workers, and service coordinators work in a setting that values and rewards collaborative activities and enables them to work in a collaborative manner. As described earlier, the climate and philosophy of the EI program clearly influences and reflects these variables. However, the number of responses pointing more specifically to policies and practices that supported collaborative activities among families and professionals suggested the creation of the category labeled *administrative policies and practices*.

Flexibility with regard to service delivery options and scheduling has been described as an important dimension in contributing to collaboration. To be flexible, programs must schedule staff for work in a manner that does not overwhelm them. Both service coordinators and parents frequently mentioned that an administrative policy allowing employees to work on flexible schedules enhanced collaboration. This practice enabled parents and service coordinators, as one parent noted, to "work out meetings on weekends or evenings when I'm not working." The lack of such flexibility could be seen as interfering with collaboration if staff members were not free to offer services beyond traditional work hours or felt overburdened if they did so independently. Some respondents noted that time was built into their schedules to enable them to develop relationships more effectively (i.e., "catch-up'" time was included).

Many respondents described opportunities for developing collaboration skills. For example, a service coordinator noted that there were "regular team meetings plus informal opportunities to develop skills." Formal professional development opportunities are also impor-

tant. One service coordinator wrote that her program provided "active in-services to help us shift from 'doers' to collaborators," which enhanced collaboration. Another referred to the importance of training opportunities and ongoing supervision. By providing time and monetary support, or by sponsoring professional development activities, administrators communicate that it is important to develop these skills and perspectives. One service coordinator appreciated "[the program's] trust in the individual service coordinator to find ways to collaborate with parents." It appears that, if program administrators trust and respect their staff as capable professionals, service coordinators are empowered to engage more often in practices reflective of collaborative principles. The support and mentoring of specific administrative personnel (i.e., directors, supervisors, administrators) was revealed in a number of the service coordinators' comments.

Quality of Program Personnel. Although one could argue that personal factors fall beyond the focus of a study on program variables, respondents to this survey emphasized the importance of employing program personnel who were good communicators and whose behaviors and actions reflected a family-centered approach to working with families. These responses were coded as a subcategory of administrative policies and practices, because the administrators employ the personnel who work within their programs. As one father responded, "clearly the manager has a talent for hiring friendly, extroverted people as coordinators." Another noted that previous programs with which he had been involved "were unsuccessful [and collaboration was hindered] because of the preconceived attitudes and approaches demonstrated by the therapists and lack of involvement of the service coordinator."

Community Context. This category was developed when it became apparent that many responses to the question of what *hindered* collaboration addressed the influence of an agency or the larger community service system on the nature of an EI program's services. Service coordinators were more inclined than parents to comment on these factors.

Variables that fell in this category related to funding, relationships with other agencies, and outside bureaucratic demands. For example, one mother noted that "unfortunately, funding has put them on 11-month contracts with alternating periods off," which created team consistency problems. It could be argued that program administrators could organize scheduling differently, but clearly funding stimulated the change. The issue of contracted service providers was frequently mentioned with regard to consistency of staff, communication, and scheduling. The difficulties for collaboration under these

circumstances are evident in a service coordinator's response: "contracted service providers [physical therapist, occupational therapist, pediatrician] come to our town only once or twice a month. Scheduling assessments is a *nightmare!*" It appears that this problem would particularly affect smaller communities. Although interagency relationships—a hallmark of early intervention service provision—were problematic for a number of respondents, positive relationships whereby "the various agencies seem able to cooperate, instead of competing," as one service coordinator noted, enhanced collaboration for others. As expected, paperwork and bureaucracy were necessary but constant detractions for parents and service coordinators.

Summary. The categories described represent the variables that emerged when parents and service coordinators were asked to indicate what it was about the early intervention programs with which they were associated that most enhanced and most hindered collaboration. The overall philosophy and climate of the program has a major effect on the way programs operate and the manner in which services are delivered. Program philosophy also relates to the administrative practices that support collaboration, including the quality of the personnel who are hired to work in that setting and how they work together with families as members of the EI team. Finally, the community context and the total EI system in which the individual EI programs operated was related to the collaboration process.

Proportion and Relative Significance of the Categorized Variables

In addition to identifying major themes or categories of responses that might influence collaboration between parents and service coordinators, we were interested in the proportion of responses that fell into each category. Although the proportion of responses in a given category cannot be equated with the degree of importance of that category relative to others, it provides an indication that variables reflected in that category may significantly affect collaborative relationships. Because the focus of this analysis was on program practices that influenced collaboration, the 108 responses coded as quality of program personnel were removed from this analysis. Table 1 depicts the number of responses coded into each of the aforementioned categories and compares the number of responses provided by parents and service coordinators. Variables that enhance and hinder collaborative relationships are reported separately. Of interest is the number of overall responses to each of the questions. Whereas a total of 309 separate responses (174 from parents, 135 from service coordinators) regarding variables that enhanced collaboration were coded, only 53 responses were coded related to hindering collaboration (20 responses from parents, 33 from service coordinators).

When we examine the ranking of categories for parents and service coordinators, it is evident that service delivery issues played a major role for parents and service coordinators in enhancing collaboration, whereas is-

TABLE 1. Proportion and Ranking of Response Categories

Response category	Overall responses[a]		Parent responses[b]		SC responses[c]	
	n	%	n	%	n	%
Enhances collaboration[d]						
Service delivery	173	56	113	65	60	44
Teaming approaches	70	23	40	23	30	22
Program philosophy and climate	52	17	15	9	37	27
Community context	7	2	3	2	4	3
Administrative policies and practices	7	2	3	2	4	3
Hinders collaboration[c]						
Community context	27	51	8	40	19	58
Service delivery	18	34	11	55	7	21
Administrative policies and practices	6	11	0	0	6	18
Teaming approaches	2	4	1	5	1	03
Program philosophy and climate	0	0	0	0	0	0

Note. The 108 responses (89 from parents; 19 from service coordinators) that reflected the personal skills or characteristics of service coordinators were not included in this analysis, as they did not directly reflect program practices. SC = service coordinator.
[a]n = 362. [b]n = 194. [c]n = 168. [d]For "Enhances collaboration," overall response n = 309, parent response n = 174, SC response n = 135. For "Hinders collaboration," overall response n = 53, parent response n = 20, SC response n = 33.

sues related to community context were least often mentioned as enhancing collaboration. A major difference between the proportion of parents' and service coordinators' responses is found in the category of program philosophy and climate. Service coordinators were more likely to identify variables related to this category as enhancing collaboration than parents. It is interesting to note that the relative ranking for program variables that enhanced collaboration remained otherwise consistent across parents and service coordinators.

As described earlier, there were significantly fewer responses to questions related to program practices detracting from collaboration. Of the 53 total responses provided, more related to community context issues than to any other category. Service coordinators most often wrote about variables reflecting community context issues, whereas parents were much more likely to identify variables related to service delivery as those that detracted from collaborative relationships. When those responses that reflected the quality of program personnel were excluded from the analysis, none of the parents identified administrative policies or practices that hindered collaboration, whereas 18% of service coordinators' responses continued to reflect this category. Neither parents nor service coordinators identified variables related to the category of program philosophy and climate as significantly detracting from collaboration.

DISCUSSION

Early intervention may be conceptualized as a system of services available to families of infants and toddlers with or at risk for disabilities or developmental delays (Thurman, 1997). An EI program is but one provider in a broad system. EI programs cannot and should not operate in isolation from the range of early intervention services available to families within a community, as evidenced in this study. Parents and service coordinators are members of an EI program in a system that is dynamic and is influenced by its members. Thurman pointed out the difference between the terms "setting" and "system." He argued that, whereas a system is "a complex set of interacting entities whose collective function forms a synergy [and is] broad in nature," a setting is "more discrete and circumscribed [and is] typically embedded within a larger system" (pp. 4–5). A system has flexible boundaries and characteristics; to paraphrase Thurman, an early intervention center is a setting, whereas an early intervention program is a system. Thus, early intervention services can be provided in a variety of settings, a principle that many respondents of this survey identified as enhancing the collaborative relationship between parents and service coordinators. An early intervention program offers services through a best fit model,

based on the needs of the families it serves. The results of this analysis underscore the importance of the *best fit* construct, given the emphasis placed on service delivery options as a variable that enhances collaborative relationships. Parents and service coordinators both identified practices in this category as enhancing and detracting from collaboration.

Although parents and service coordinators cited the service delivery category as vital to successful collaboration, the administrative policies and practices employed by the program and, more specifically, the qualities of the program personnel also were identified as important in influencing collaboration. Although the questions addressed in this analysis related to EI *program practices,* many respondents (particularly parents) identified the *personal* characteristics of service coordinators employed by a program as a variable contributing to successful collaboration. This might be an artifact of their responses to the 78 closed-ended statements, in that none of these statements reflected EI program practices. However, it may also reflect the importance that respondents' placed on the characteristics and skills of service coordinators.

When possible, it is critical that administrators recruit and hire EI professionals who possess the skills and characteristics that parents consider important. However, given the shortages of EI personnel, it may not always be possible to find individuals who possess these skills. Administrators must thus be mindful of the systems and staff support put into place to help individuals engaged in collaborative relationships. Both Trivette (1998) and Winton (1998) emphasized the need for ongoing training and support for staff in order for personnel to better implement family-centered practices (an important component of successful collaboration). Winton suggested that there should be opportunities for ongoing professional growth and that "it is within the context of daily routines and relationships that staff development can best take place" (p. 116).

The results from this study indicate that administrators can further support collaborative relationships between parents and service coordinators by developing and implementing opportunities for staff and families to work together in teams (Garland & Linder, 1994). Program administrators support collaboration when they permit flexible staff scheduling and implement teaming approaches that allow members to share information in meaningful ways. Furthermore, given the importance of including parents as full team members, it is critical to find ways of supporting parents' participation. Scheduling team meetings when parents can attend is a practice that enhances collaboration. Transdisciplinary approaches whereby team members' roles are fluid and dependent on the needs of the family also support collaboration between parents and service coordinators. Clearly, program practices that are developed based on the needs

of families and early intervention professionals are practices that support collaboration.

Limitations

Limitations of the overall survey of which this analysis is a part have been fully discussed in Dinnebeil et al. (1996). They include (a) a questionnaire return rate of 35% for parents, (b) lack of information on whether the administrators actually implemented the planned random sampling procedures, (c) a possible self-selection bias for those EI programs who volunteered to participate in the survey, (d) the limited cultural and ethnic diversity in the respondents, and (e) absence of information to clearly differentiate the responses of mothers from those of fathers. This research would have been strengthened if EI programs had been selected randomly to participate in the research and if follow-up contacts with the EI program would have been employed to determine how representative the demographic characteristics of the respondents were of the program's families. Moreover, no information was collected about the roles and responsibilities of the service coordinator respondents or the demographic characteristics of the programs that distributed questionnaires. Although these limitations affect the degree to which these results can be generalized to the population of parents and service coordinators involved in early intervention, the responses of this sizable national sample of parents and service coordinators are nonetheless useful.

It is also important to acknowledge that the analysis in this study is based on our values and perspectives. Others might interpret the information gathered through this survey differently. Because the information presented here was gathered through a written survey, responses must be interpreted cautiously. For example, there were more than seven times as many responses to the question related to program practices that *enhanced* collaboration than to the question about practices that *hindered* collaboration. We cannot be certain why this occurred. There may be other program practices that influence collaboration; this is likely not an exhaustive list of such program practices.

A final limitation of this analysis involves the interpretation of responses coded as administrative policies and practices. As noted earlier, the overwhelming majority of responses coded into this category reflected specific characteristics of program personnel. Although these results reflect the importance that respondents placed on individuals' characteristics, they only represent a small portion of the possible administrative policies and practices that affect collaboration. Respondents completed these two questions after evaluating characteristics that parents and service coordinators bring to a relationship. Thus, it is possible that the placement of these two questions at the end of the questionnaire prompted the respondents to answer questions about program practices with individual characteristics of service coordinators in mind. However, it may be that respondents believed that these characteristics truly reflected aspects of early intervention programs as discussed earlier.

CONCLUSION

Service coordination continues to be an important function of early intervention programs that parents value highly. Service coordination exists in the context of a relationship between a parent and a service coordinator, and this relationship exists in the context of the early intervention program system. The ways in which early intervention programs support parents and service coordinators engaged in a collaborative relationship are complex and remain an important subject for research. It is important that policies and practices of early intervention programs be *person centered*—that is, that they reflect the needs of families and support the work of early intervention professionals. This research and that of others (Korfmacher, 1998; McWilliam et al., 1995; Murphy, Lee, Turnbull, & Turbiville, 1995; Tocci et al., 1997) has described a host of variables that affect successful collaborative relationships within an early intervention program. Viewed from a systems approach, these variables are interactive and are difficult to discuss in isolation (Bronfenbrenner, 1979). Whereas this investigation revealed a broad range of variables, future research might explore both individual and system variables in a more in-depth investigation. It is also important to identify and understand the interrelations among components of the early intervention program and how those components support effective service coordination. Recent discussion has sought to identify appropriate outcome measures of early intervention programs (Bailey, 1997). Might the successful working relationships between parents and professionals such as service coordinators engaged in early intervention programs be considered an appropriate outcome measure? If so, it is important to continue defining and describing variables that contribute to these successful relationships. ◆

AUTHORS' NOTES

NOTE

Copies of the questionnaires for parents and service coordinators are available from the first author.

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