

ATTITUDES AND PERCEPTIONS OF NURSES REGARDING EARLY COMMUNICATION INTERVENTION



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OPSOMMING

Alhoewel verpleegkundiges 'n belangrike rol speel in Vroeë Kommunikasie Intervensie met hoërisiko-babas en kleuters van 0-2 jaar, is beperkte navorsing egter uitgevoer oor hierdie rol. Die doel van hierdie studie was om te bepaal wat die houdings en persepsies van verpleegkundiges is aangaande Vroeë Kommunikasie Intervensie. Sestig verpleegkundiges werksaam in pediatriese afdelings en neonatale sorgeenhede in hospitale in Pretoria, het as respondente opgetree. 'n Beskrywende opname-metode is gebruik en 'n vraelys is opgestel wat deur die respondente voltooi is. Die resultate dui daarop dat die respondente die rol van die verpleegkundige in Vroeë Kommunikasie Intervensie as belangrik beskou het. Leemtes ten opsigte van sekere kennis-areas is egter geïdentifiseer. Noue en verbeterde samewerking tussen verpleegkundiges en spraaktaalterapeute word as essensiële beskou. Indiensopleiding word aanbeveel om die kwaliteit van dienste wat aan hoërisiko-babas en kleuters van 0-24 maande gelewer word, te verbeter en te verseker.

ABSTRACT

Although nurses play a vital role during Early Communication Intervention with infants and toddlers 0-2 years, limited research has been conducted regarding this role. The purpose of the current study was to determine the attitudes and perceptions of nurses regarding Early Communication Intervention. Sixty nurses working in paediatric wards and neonatal intensive care units in hospitals in Pretoria, acted as respondents. A descriptive survey design was used and a questionnaire was completed by the respondents. The results indicated that the respondents perceived the role of the nurse in Early Communication Intervention to be important. Areas of insufficient knowledge of the respondents were also identified. Enhanced cooperation between the nurse and speech-language therapist is viewed as essential. In-service training and sharing of information is recommended to improve the quality of Early Communication Intervention services supplied to high risk infants and toddlers, in order to ensure optimal communication development in the infant and toddler 0-24 months.

INTRODUCTION

Early Communication Intervention refers to the assessment and treatment provided to families and their children below the age of three years, who demonstrate, or are at risk for either a disability or a delay involving communication, language, speech or oral-motor behaviour (ASHA, 1989). According to Rossetti (1990) children who are at risk for a communication delay or disability are viewed as representing established risk factors, such as diagnosed medical conditions (e.g. Down syndrome), biological risk factors (e.g. low birth weight, prematurity), or environmental risk factors (e.g. adolescent mothers, parents who are substance abusers). These factors may, either singly, or in combination, result in developmental difficulties or may interfere with normal development (ASHA, 1989).

A primary health care model has been proposed in South Africa to meet the needs of the community with priority given to the most vulnerable groups, i.e. children. This model emphasizes full community participation and team work as central components of services rendered. Early Communication Intervention provides services to children

who are at-risk for developing communication delays or disabilities and is viewed as an effective strategy in the secondary prevention of communication disorders (Rossetti, 1990). It improves the prognosis of the infant and family, leads to the development of the child's maximum potential and can avert potential problems. Early Communication Intervention involves educating, training, supporting and thus empowering families of high risk infants and toddlers and fits into the framework of the primary health care model envisaged for South Africa.

In the USA, Public Law (P.L.) 99-457 (1986, in Rossetti, 1990) mandates services to disabled infants and toddlers (birth to 3 years of age) and their families. This law specifically states that services to these infants and toddlers are provided by multidisciplinary teams composed of qualified personnel (Weitzner-Lin, Chambers & Siepierski, 1994). Increased research and interest in early intervention programmes has led to wide spread implementation of early intervention. As more states and countries embark on providing early intervention, new roles continue to emerge in various

disciplines (Dunn, van Kleeck & Rossetti, 1993). One such new role is the active involvement of nurses in Early Communication Intervention.

Parents as well as nurses are the primary caregivers during hospitalization of infants and toddlers and have an important role to play in Early Communication Intervention (Rossetti, 1990, 1996). The nurse is in close communicative interaction with the hospitalized infant and toddler. Due to longer hospitalization periods that at-risk infants and toddlers are often exposed to, the nurse has the unique opportunity to observe the communication skills of infants and toddlers who are at risk for developing a communication delay or disability. Nurses can serve as an important link in the identification and referrals of infants and toddlers to the speech-language therapist and play a significant role in the language stimulation of hospitalized infants. To be adequately prepared for their role in Early Communication Intervention, nurses should have core knowledge regarding communication disorders and how these disorders are treated (Shanks, 1983).

Effective communication is fundamental to all aspects of human functioning. The development of communication begins in infancy long before the emergence of first words. Language is a necessary skill for success in social, emotional, and academic development (Hulit & Howard, 1993). Any delay or disorder that influences a young child's communication development is likely to have a significant effect on that child's later social, personal and academic life (Rossetti, 1996). Infants and toddlers who display disabilities or are at-risk for developing a communication disorder should be enrolled in Early Communication Intervention programmes as a secondary prevention measure to allow the child to develop his/her maximum potential.

The aim of Early Communication Intervention is described as maximizing the child's development, preventing later secondary disabilities, supporting families and providing cost-effective services (Bricker, 1989). To reach those objectives, comprehensive services, continuous education and therapy, family involvement, and a variety of services must be delivered to meet the child and family's needs (Bricker, Bailey & Bruder, 1984). To expect any one agency to service all the needs of the family and child is unrealistic. Professionals operating alone tend to develop a very narrow view and thus miss important aspects of developmental delay by interpreting observed behaviour from a limited professional vantage point (Rossetti, 1990). It is therefore important to establish a team-approach, where a variety of professionals cooperate to deliver comprehensive services to the child and family.

In a team-approach, each member works with a greater awareness of what others are doing, a greater degree of coordination and integration of services can be delivered and professionals share responsibilities, working towards a common goal (Rossetti, 1990).

One of the most effective ways that team members can improve their ability to function more effectively is to understand the role that they and others fulfil in a team. To achieve a team-approach, members should commit to teaching and learning from one another, and must assume interchangeable roles and responsibilities (Briggs, 1993).

The care of high-risk infants and toddlers is shared among many health care professionals but two key team members in Early Communication Intervention are nurses and speech-language therapists.

The importance of the role of nurses is based on the following: the developmentally disabled infant and toddler often have chronic health problems, some of which will necessitate repeated hospitalization (Copeland & Kimmel, 1989), resulting in separation from caregivers, impairing both attachment and associated normal communication development (Sparks, 1989). Nurses share primary caregiving with parents during hospitalization (Rossetti, 1990) and can influence social development of at-risk infants and toddlers as a great deal of the hospitalized infant and toddler's time is spent with the nurse (Miller & Holditch-Davis, 1992). Nurses also serve as role-models for the parents and affect the amount of time that parents spend with infants and toddlers by encouraging or discouraging visitation (Miller & Holditch-Davis, 1992). Nurses know when infants and toddlers are likely to be in an alert state and can use a wide range of opportunities to provide language stimulation to the hospitalized infants. Finally, according to Jacobsen and Shubat (1991) nurses' implementation of communication techniques will reinforce parents' skills in this regard.

The speech-language therapist has the expertise and primary responsibility in Early Communication Intervention for identifying, assessing, diagnosing and treating communication delays or disabilities (e.g. receptive and expressive language) and oral-motor disabilities (eg. feeding and swallowing processes). Consultation with other professionals in providing Early Communication Intervention services is another one of the speech-language therapists' roles. (ASHA, 1989). Parents are provided with information on normal communication development and families are helped to adjust to caring for their infant. The speech-language therapist also trains parents to communicate with their at-risk infant and toddler. Feeding assistance may be provided as well as modification of the infant and toddler's environment to allow for optimal communication (Jacobsen & Shubat, 1991). The speech-language therapist provides and evaluates the effectiveness of Early Communication Intervention, modifies a particular programme and is responsible for enhancing public awareness regarding speech, language and oral-motor problems of at-risk infants and toddlers (ASHA, 1989).

According to the above description of the roles of nurses and speech-language therapists in Early Communication Intervention, a good foundation exists for the development of a collaborative relationship between these two disciplines, where the emphasis is placed on shared goals, that will serve in the infants' and toddlers' best interests. Clearly both the nurse and speech-language therapist have complementary roles to play in Early Communication Intervention.

Although nurses play a vital role during Early Communication Intervention, limited research has been conducted internationally regarding perceptions of their role.

The purpose of this study was to determine the attitudes and perceptions of nurses regarding Early Communication Intervention. It was hoped that information could be utilized to initiate and establish effective team work to the mutual benefit of infants and toddlers who are at-risk for communication disorders and to the participating team members.

METHODOLOGY

Aims:

The following research questions were posed and served as the aims of the study:

- What are the attitudes and perceptions of nurses working in in-patient, high care contexts regarding the roles of the speech-language therapist and the nurse during Early Communication Intervention?
- What is nurses' knowledge of the factors and conditions contributing to communication delays or disabilities in infants and toddlers?
- Do nurses have adequate knowledge to identify communication delays and disabilities in infants and toddlers 0-24 months, and do they have adequate knowledge regarding the effects of a communication disorder on other developmental areas?
- What are nurses' perceptions and attitudes of communication interaction with infants and toddlers in their care?
- What are nurses' attitudes regarding a team-approach during Early Communication Intervention?
- Do nurses require additional information on Early Communication Intervention?

Research Design

This study employed a descriptive survey design (Bless & Achola, 1990) to examine the attitudes and perceptions of nurses regarding Early Communication Intervention. A questionnaire was compiled to gather information.

Subjects

A target population of nurses working in paediatric wards and neonatal intensive care units was used for this study. Ten hospitals in Pretoria were contacted telephonically and permission was requested to distribute the questionnaires to paediatric nursing staff members. Staff in eight of these ten hospitals were prepared to act as respondents of the questionnaire. Sixty of the one hundred questionnaires that were distributed, were completed and utilized in the study. This high return rate is attributed to the fact that the questionnaires were delivered and collected personally (Bless & Achola, 1990). Table 1 provides the demographic characteristics of the respondents.

Table 1: Demographic Characteristics of the Respondents (n=60)

CHARACTERISTICS	N = 60	100%
Professional qualifications:		
- Degree	8	13%
- Diploma	52	87%
Work environment:		
- Paediatric ward	40	67%
- NICU	20	33%
Geographical area:		
Pretoria, SA	60	100%
Hospital:		
State	23	38%
Private	37	62%
Employment status:		
- Full-time	52	87%
- Part-time	8	13%

According to Table 1 the majority of the respondents were diploma graduates, worked in children's wards and were permanently employed by private hospitals.

Instrument

A questionnaire was compiled with the aim of determining the attitudes and perceptions of nurses regarding early communication intervention with at-risk infants and toddlers aged 0-24 months. The sample group of 0-24 months was selected as Early Communication Intervention has been proven to be more effective the earlier it is initiated (Rossetti, 1996). The questionnaire was accompanied by a cover letter to the respondents in which the general purpose of the survey was explained, their cooperation was requested and their anonymity was ensured.

The questionnaire was developed with careful consideration of those issues that are most relevant to Early Communication Intervention. The content areas and items were selected based on a thorough review of the literature and on knowledge and experiences that the authors felt were important to have in order to function optimally as a nurse on an Early Communication Intervention team.

The questionnaire itself consisted of six content areas. Those content areas that the survey addressed were: (1) role of the nurse, and of the speech-language pathologist; (2) factors and conditions contributing to early communication delays or disabilities; (3) early identification of communication disorders; (4) communication interaction with infants and toddlers; (5) team-approach; (6) requests for additional information.

The questionnaire contained different types of close-ended questions as these are regarded as simple and easy to record and score, improving the efficacy and reliability of results (Bless & Achola, 1990). Close-ended questions, however, also have certain disadvantages (e.g. guessing, selection of logical answers, clerical errors). The close-ended type of question was selected due to the respondents extremely busy schedule and the limitations thereof were born in mind in compiling the questionnaire (Bless & Achola, 1990).

Data Collection Procedure

One hundred questionnaires were delivered to the hospitals by the researchers. The aim of the survey was discussed with the nurses in charge of the paediatric and neonatal intensive care units targeted, and they were requested to distribute the questionnaires to their colleagues. In order to limit possible bias, it was agreed that respondents would not corroborate with each other in completing the questionnaire and that completed questionnaires would not be open to scrutiny of others. A return date was determined and the researchers personally collected the completed questionnaires.

Data Analysis and Processing

Sixty questionnaires were returned and included in the data analysis. The data obtained from the questionnaire was encoded according to a computer coding system devised for the study. The data was described quantitatively by providing each answer to a question in the form of cumulative frequencies which were then converted to percentages of responses to each question. A simple frequency distribution of the answers to each question was used to present the data (Dane, 1990).

RESULTS AND DISCUSSION

The results are presented according to the research questions posed.

Attitudes and perceptions regarding the roles of the nurse and speech-language therapist during early communication intervention.

According to Figures 1 and 2 the respondents rate both the nurse and the speech-language therapist as important team members during Early Communication Intervention. Figure 1 illustrates that the respondents agreed strongly that nurses could identify communication problems (93%), could cope with feeding problems (85%) and should provide information to and be supportive of parents (78%). According to figure 2 the respondents felt that the speech-language therapist could detect a hearing loss early (94%), assess oral-motor functioning (92%), provide stimulation (98%), facilitate the development of communication skills (91%) and determine the need for intervention (90%). However, uncertainty exists regarding the specific roles of these professionals e.g. the role of the nurse during Early Communication Intervention, the role of the speech-language therapist during feeding. The findings indicate a need for a clearer role differentiation between that of the nurse and the speech-language therapist during early communication intervention.

Figure 1. Attitudes and perceptions regarding the role of the nurse during early communication interventions.

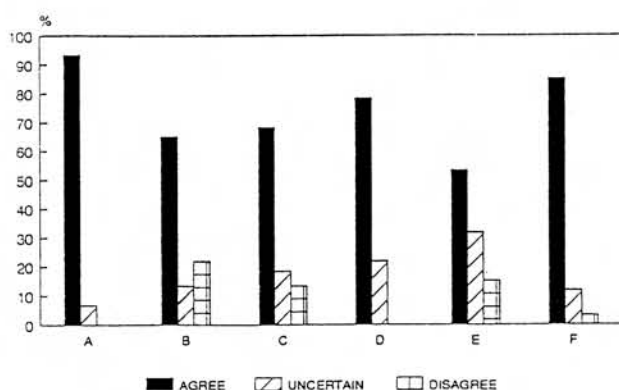


Figure 1: Attitudes and perceptions regarding the role of the nurse during early communication intervention.

Key Figure 1 :

- A = Identification of communication disorders
- B = Role as substitute parents
- C = Enhancement of social development
- D = Support of and information to parents
- E = Teaching communication styles to parents
- F = Feeding

The greatest deficit in the respondents' knowledge regarding the nurses' role in Early Communication Intervention according to figure 1 occurred concerning the role of acting as substitute parents during hospitalization (55% agreed), enhancement of social development (68% agreed) and acting as communication models to parents (53% agreed). There is thus a need to enhance nurses' knowledge specifically with regard to strategies of how to

Figure 2. Attitudes and perceptions regarding the role of the speech-language pathologist during early communication intervention.

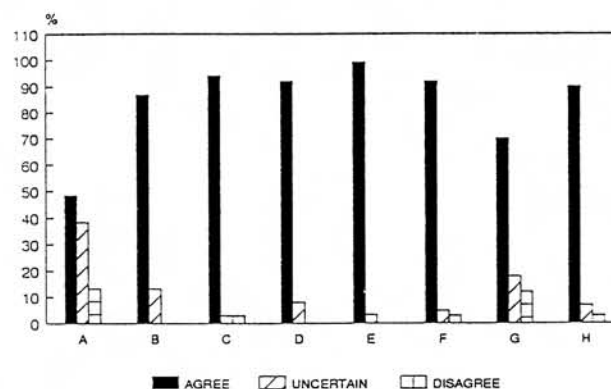


Figure 2: Attitudes and perceptions regarding the role of the speech-language pathologist during early communication intervention.

Key Figure 2 :

- A = Feeding
- B = Support of and information to parents
- C = Detection of hearing loss
- D = Oral-motor evaluation
- E = Providing stimulation
- F = Development of communication skills
- G = Overall assessment of infants
- H = Determining need for intervention

help parents to communicate effectively with their at-risk infants and toddlers. The respondents did not appear to realize the importance of early stimulation and the need to act as adequate role-models for optimal communication development. According to Miller and Holditch-Davis (1992) nurses set the tone for parents' interactions with their hospitalized infants. Nurses help parents to read and to respond to infant cues and help them to develop effective strategies for soothing and socializing with their infants (Gardner & Hagedorn, 1992).

The respondents were also not sufficiently aware of the role that the speech-language therapist plays during feeding (48%) (see Figure 2). The findings therefore support the need for closer networking between nurses and speech-language therapists. Establishing adequate feeding abilities in the at-risk infant is an important function of the speech-language therapist as there is a direct relationship between the development of the oral mechanism during feeding and the development of its coordination for speech production. Feeding also influences the development of personal-social skills, cognitive development, perceptual and sensory development, communication development and promotes mother-child interaction (Shanks, 1983). Education of not only the respondents, but also of nurses in general, concerning these issues is important to ensure that all hospitalized at-risk infants and toddlers receive the best possible services to help them to develop to their full potential.

Knowledge regarding factors and conditions contributing to early communication disorders

According to Figure 3 the respondents evidenced adequate knowledge regarding factors and conditions contributing to communication delays and disabilities, but do not appear to realize the potential negative effect of feeding problems

(70% responded that it may sometimes be a problem) and low birth weight (68% responded that it may sometimes be a problem) on communication development. Infants with low birth weight and infants with feeding problems are at increased risk of communication delays or disabilities. Feeding problems are associated with limited motor ability that interferes with the movements of the mouth necessary for speech production (Copeland & Kimmel, 1989). Consensus has been reached in the literature that low birth weight and prematurity are the two most important high-risk factors contributing to communication disorders (Rossetti, 1990, 1996). Nurses need to be sensitized to these two important risk factors in order to make early referrals to the speech-language therapist and target these infants and toddlers for participation in Early Communication Intervention programmes.

Figure 3. Knowledge regarding factors and conditions contributing to early communication disorders.

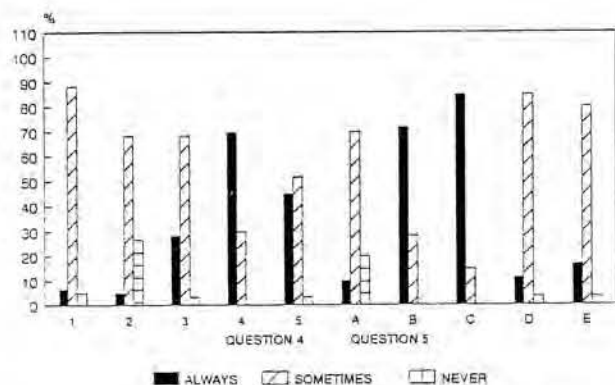


Figure 3: Knowledge regarding factors and conditions contributing to early communication disorders.

Key Figure 3 :

- | | |
|-------------------------------|-------------------------------|
| 1 = Prematurity | A = Feeding problems |
| 2 = Low birth weight | B = Lack of adult stimulation |
| 3 = Developmental motor delay | C = Hearing problems |
| 4 = Syndromes | D = Frequent hospitalization |
| 5 = Anatomical defects | E = Serious illness |

Knowledge regarding the factors and conditions contributing to communication disorders provides a basis for the identification and referral of infants and toddlers with possible communication delays or disabilities and for the implementation of Early Communication Intervention.

Knowledge regarding the identification of communication delays and disabilities in infants and toddlers 0-24 months

According to the results of the study the majority of the respondents correctly identified options provided to them as symptoms of a communication disorder, indicating that they were able to identify early communication disorders or delays in infants and toddlers between 0 - 24 months of age. Figure 4 indicates that the respondents evidence adequate knowledge of the pervasive influence of a communication disorder on infants and toddlers as 80% of the respondents indicated that social development, 70% that emotional development and 60% that intellectual development will be affected by a communication disorder. According to the results it appeared that the respondents have adequate

knowledge of the majority of symptoms of a communication disorder, but a small percentage of the respondents evidenced insufficient knowledge regarding the effects of a communication disorder on other developmental areas. It is crucial that nurses are well informed about the symptoms of communication disorders, if participation in early identification of at-risk infants and toddlers and early referrals are expected of them.

Figure 4. Knowledge of developmental areas that can be affected by early communication disorders.

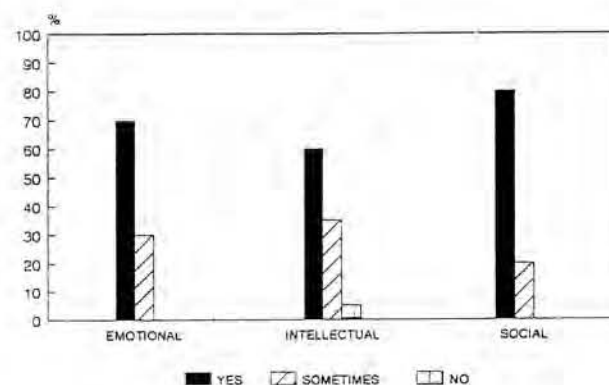


Figure 4: Knowledge of developmental areas that can be affected by early communication disorders.

Perceptions and attitudes of communication interaction with hospitalized infants and toddlers 0-24 months

The respondents' perceptions of communication interaction with infants and toddlers in their care are illustrated in Figure 5. According to Figure 5 100% of the respondents always talk to the infants while bathing them, 97% establish eye-contact during feeding, and 90% smile in reaction to infants' vocalizations. The respondents appear to fully understand the importance of communication interaction with the hospitalized infant and toddler since they implement different strategies to achieve this goal. From the above it can be concluded that, in this regard, the majority of respondents' attitudes complemented their perceptions. Results presented in Figure 5 show that, although the respondents did have opportunities for social interaction with infants and toddlers in their care, they did not always take full advantage of them as only 50% always named objects and 54% imitated the infants' vocalizations during contact. It is also apparent that the respondents did not always have the time to respond to infants' and toddlers' communication attempts. Heavy patient loads at times were cited as a reason preventing nurses from providing social stimulation. Although research (Miller & Holditch-Davis, 1992) has found no relation between staff-patient ratios and the amount of positive handling infants receive, the results of this research indicate the opposite. Heavier than normal schedules and care-routines were perceived to have a limiting effect on language stimulation that in turn could contribute to communication disorders. Even though heavy patient loads at differing times do exist, it is the perception of the respondents that language stimulation could still successfully be coordinated with established nursery routines (Jacobsen & Shubat, 1991).

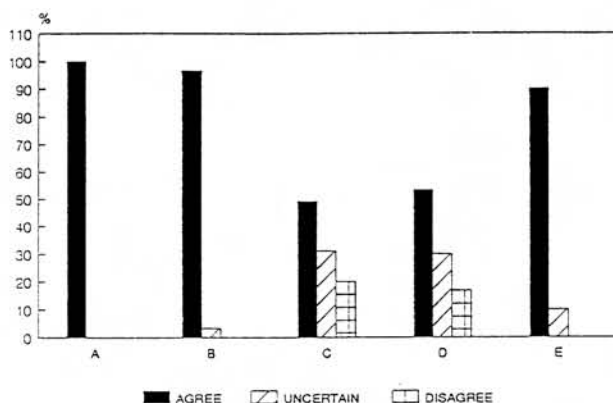


Figure 5: Perceptions of nurses' communication interaction with infants.

Key Figure 5 :

- A = Talk to infants
- B = Establish eye-contact
- C = Name objects
- D = Imitate infants' vocalizations, gestures
- E = Smile in response to vocalizations

Attitudes towards and perceptions of a team-approach to Early Communication Intervention

According to Figure 6 the respondents are well versed in the importance of a team approach to Early Communication Intervention. 100% of the respondents agreed that consultation with other professionals is essential in the treatment of high-risk infants, that the exchange of knowledge should take place regularly and that mutual exchange of knowledge and skills between nurses and speech-language therapists is the core of Early Communication Intervention. This finding could be attributed to training that the respondents received before qualifying and the approach of their current work settings. The formulation of the questions may, however, also have been interpreted as a leading question. The small percentage of respondents who had insufficient knowledge of the team-approach could limit the implementation thereof. This lack could be addressed by means of in-service education programmes. It is supported by the fact that a larger percentage of respondents had expressed the desire to obtain more information (See Table 2). Imprecise definitions of roles and responsibilities and the lack of involvement of key personnel have been identified as being barriers in the team approach. It is important that each member in a team maintains the necessary balance for effective interaction to occur (Briggs, 1993).

Requests for additional information on Early Communication Intervention

Finally the respondents were requested to indicate whether they felt comfortable with their knowledge regarding communication with infants and whether they would like additional information on the subject. Table 2 indicates that, even though the majority (57%) of the respondents felt comfortable with their knowledge, 92% of the respondents expressed the desire to obtain more information. This is seen to be indicative of the respondents' positive attitude and receptivity to new information and their interest in the topic. This positive attitude embodies the spirit of team work which is essential for effective service delivery (Briggs, 1993, Rossetti, 1996).

Figure 6. Attitudes and perceptions regarding a team approach



Figure 6: Attitudes and perceptions regarding a team approach.

Key Figure 6 :

- A = Consultation with other professionals
- B = Exchange of knowledge between professionals
- C = Commencing teamwork in the hospital
- D = Mutual exchange of knowledge and training between nurses and therapists
- E = Consultation between nurses and speech-language therapists
- F = Referrals to the speech-language therapist
- G = Co-operation between nurses and speech-language therapists

Table 2: Perceptions about knowledge regarding communication with infants

Knowledge	N=60	100%
Comfortable with knowledge:		
Yes	34	57%
No	26	43%
Request further information		
Yes	55	92%
No	5	8%

CONCLUSIONS AND IMPLICATIONS FOR NURSING PRACTICE

Although this study was conducted on a small sample in a single geographical area, the dearth of international literature regarding the topic and nature of results make the findings of interest to all nurses involved in the care of at-risk infants and toddlers.

This study showed that the respondents perceived the role of the nurse in Early Communication Intervention to be important and that the majority had sufficient knowledge to refer at-risk infants and toddlers for Early Communication Intervention. However, the results also suggest that the respondents need a stronger knowledge base, require education and training in not only providing communication stimulation to infants and toddlers in their care, but also in utilizing opportunities for social interaction and acting as role models for parents within the team framework. This may be achieved by continued professional contact, closer networking between the two professions and in-service training. Speech-language therapists need to co-operate with nurses and vice versa in early service delivery by adhering to and maintaining all

nursing and speech-language therapy protocols, which are mutually supportive, consulting with and demonstrating to each other their relevant services. By sharing descriptions of the roles of the nurse and speech-language therapist in early communication intervention, these key members could work towards common goals and the delivery of effective and accountable services.

By fulfilling their role in Early Communication Intervention, nurses could provide optimal services to the benefit of infants and toddlers who are at-risk for communication disorders, thereby preventing later secondary disabilities. Professionals engaged in treating and monitoring developmental progress are privileged to contribute to the total child, who will ultimately live and learn to their maximum (Shanks, 1983). The challenges of providing effective and accountable Early Communication Intervention services are great. A commitment to meeting those challenges can result in meaningful professional and personal rewards for both the nurse and the speech-language therapist.

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