Early Communication Intervention within a Community-based Intervention Model in South Africa

Lisl Fair and Brenda Louw

Centre for Early Intervention in Communication Pathology
Department of Communication Pathology
University of Pretoria

ABSTRACT

Infants and toddlers with special needs within the developing context in South Africa are not currently receiving adequate early communication intervention services. The development of a model for service delivery to this population is imperative for the successful implementation of early communication intervention in the developing context in South Africa. The basic model of early intervention service delivery provides a theoretical basis for early intervention service delivery but has certain limitations when applied to the developing context in South Africa. Community-based intervention is proposed as an avenue for the delivery of health care services within primary health care although constraints in the application of community-based intervention exist. An integrated model of early communication intervention service delivery within community-based intervention is proposed and illustrated by presenting a case example.

OPSOMMING

Jong kinders binne die ontwikkelende konteks in Suid-Afrika wat 'n risiko toon om 'n kommunikasie-probleem te ontwikkel, of wat reeds 'n probleem toon, ontvang tans nie voldoende vroeëkommunikasie-intervensie-dienste nie. Die ontwikkeling van 'n diensleweringsmodel vir dié populasie is noodsaaklik vir die suksesvolle implementering van vroeëkommunikasie-intervensie in die ontwikkelende konteks in Suid-Afrika. Die basiese model van vroeë-intervensie-dienslewering verskaf 'n teoretiese basis vir vroeë-intervensie-dienslewering, maar het sekere beperkinge binne die Suid-Afrikaanse konteks. Gemeenskapsgebaseerde intervensie binne die primêre gesondheidsorg-model is voorgestel as die wyse waarop gesondheidsdienste in die ontwikkelende konteks geïmplimenteer behoort te word, alhoewel die toepassing van gemeenskapsgebaseerde intervensie sekere probleme kan oplewer. 'n Geïntegreerde model van vroeëkommunikasie-intervensie-dienslewering binne gemeenskapsgebaseerde intervensie word voorgestel en geïllustreer deur middel van 'n gevallestudie.

KEY WORDS: *early communication intervention, developing context, community-based intervention*

INTRODUCTION

Early intervention has been established internationally as accepted practice for service delivery to infants and toddlers with special needs over the past two decades (Guralnick, 1997). Early intervention constitutes services aimed at the prevention of developmental disorders and the facilitation of age appropriate developmental skills in infants and toddlers with special needs (Thurman & Widerstrom, 1990). In South Africa early communication intervention, as a field within speech-language pathology, developed gradually over the past twenty years to provide infants and toddlers with special needs with communication-based intervention aiming at the prevention of communication disorders and the age appropriate facilitation of early communication skills (Louw, 1998).

The current context in South Africa in which early communication intervention services are delivered is heterogeneous, since mixed developed and developing sections are present in South Africa (Schoeman, 1991). Approximately half of the population live in developing rural areas, while the rest live in developed urbanized areas. The 1996 sensus indicated that the population in South Africa is of diverse nature, constituting of indigenous Africans, Asians, people from Caucasian decent and also people with a mixed racial heritage (Pickering, McAllister, Hagler, Whitehill, Penn, Robertson, McCready, 1998). Apart from these demographic indicators influencing early communication intervention service delivery in South Africa, the transformation of the national health system to primary health care, also implies that service delivery by speech-language pathologists must be tailored to fit into the criterion of primary health care (Pickering et al., 1998).

The diverse nature of the current context in South Africa poses a number of unique challenges to the speech-language therapists delivering early communication intervention services in South Africa. Challenges such as the multilingual and multicultural nature of communities, the limited number of speech-language therapists working in South Africa, the geographical distribution of

young children with special needs, limited literacy skills of caregivers often present in developing communities, as well as environmental risk factors exist in the current South African context (Louw, 1998; Uys & Hugo, 1997).

A significant number of young children in South Africa is considered to be at-risk to display developmental difficulties (WHO, 1997). Although a body of research has emerged over recent years concerning infants and toddlers in developing communities in South Africa, little is documented about the current status of early communication intervention service delivery in that context and it is generally accepted that the infants and toddlers with special needs in the developing context in South Africa are not receiving adequate services (Louw, 1998). A dire need exists to expand the early communication intervention services currently being delivered in South Africa to include young children in developing communities.

In order to deliver effective and accountable early communication intervention services to young children and their families in the developing context in South Africa, the development of a model for early communication intervention service delivery in disadvantaged communities is imperative. The purpose of this article is to provide an overview of issues pertaining to early communication intervention as well as community-based intervention service delivery models and secondly to propose an integrated model of early communication intervention service delivery within community-based intervention.

MODELS OF EARLY COMMUNICATION INTERVENTION SERVICE DELIVERY

In presenting a basic model of an early communication intervention service delivery system, discussion of the terminology underlying the model, basic tenets of early intervention and service delivery issues pertaining to early intervention as well as a critical review of the basic model, is imperative. The discussion will provide a basis from which the basic model can be interpreted and expanded.

DEFINITION OF TERMS

Since different disciplines have contributed to early intervention literature, and terminology is not always used consistently, it is necessary to define the basic terminology inherent to early intervention. Early intervention refers to both the assessment and treatment of infants and toddlers who are at-risk for or who are displaying a developmental delay (ASHA, 1989). Early communication intervention constitutes early intervention from a communication-based perspective and these services are delivered by speech-language therapists (Rossetti, 1996; McDonald & Carroll, 1995). As international early intervention literature describes the whole early intervention process and not communication-based intervention per se (for example Guralnick, 1997; Blackman, 1995), the early intervention service delivery system will be described first and communication-based intervention will then be placed within the framework of the comprehensive early intervention system.

At-risk infants and toddlers refer to those young children who have the potential to develop a disorder based on biological, environmental or behavioral factors (ASHA, 1991; Rossetti, 1996). In addition, children with disorders such as syndromes or craniofacial anomalies are considered to have an established risk to have developmental problems since deviant or delayed development are often associated with established disabilities (Rossetti, 1996). The term, infants and toddlers with special needs (Mitchell and Brown (1991), is used in this article as an umbrella term to refer to both at-risk children as well as children with an established risk.

BASIC MODEL OF AN EARLY INTERVENTION SERVICE DELIVERY SYSTEM

Early intervention evolved from research indicating that infancy is a sensitive period for development, especially to individuals who have special needs arising from risk factors or established disorders (Baird & McConachie, 1995, Mitchell & Brown, 1991). In addition to the importance of early experience, the high-risk population is rapidly expanding due to advances in medical care. The subsequent need to provide services for these children led to a further expansion in early intervention services (Ferguson & Brynelson, 1991). A growing recognition also exists of the rights of infants and toddlers with special needs to have equal opportunities to develop to their full potential (Mitchell & Brown, 1991). These factors led to legislation in the USA in 1986, Part H of USA Public Law 99-457 (PL 99-457), which mandates early intervention services to infants and toddlers with special needs resulting in an expansion in early intervention services to infants and toddlers with special needs as well as a growing body of literature on early intervention (Guralnick, 1997).

Early intervention is mainly concerned with the prevention of developmental disorders (Mitchell & Brown, 1991). Prevention can take place on three levels, namely on primary level where the occurrence of a disorder is completely prevented, on secondary level where the negative outcome of a present risk or disorder is minimized and on tertiary level where rehabilitation is provided for an established disorder (WHO, 1995). Early intervention is considered as secondary prevention and aims to identify, evaluate and treat young children with special needs as early as possible in order to minimize the potential negative developmental outcome of the risk or disorder (Mitchell & Brown, 1991).

Figure 1 provides a graphical representation of a basic model of early intervention service delivery and indicates that such a system usually comprises four basic components, namely an early identification programme, an assessment facility as well as a treatment programme which is managed and supported by an administrative component (Rossetti, 1996; Mitchell & Brown, 1991; Baird & McConachie, 1995).

As indicated in Figure 1, each component of early intervention has distinct goals in order to realize the primary goal of early intervention, which is to prevent developmental disorders and minimize the potential negative effect of risk factors and established disorders by facilitating development (Mitchell & Brown, 1991). The goal of the identification component is to identify infants and toddlers with special needs as early as possible and to usher them into the assessment component of the early intervention system (Rossetti, 1996). The assessment component serves as a diagnostic facility and provides a profile of strengths and weaknesses by identifying the developmental level of the infants and toddlers served. The information obtained from the assessment serves as the basis

from which treatment is planned (Rossetti, 1996). The treatment component consists out of the age appropriate facilitation of developmental skills, within a family centered approach, in order to assist the high-risk infant or toddler to reach his or her full developmental potential (Mitchell & Brown, 1991).

The basic model describing an early intervention service delivery system is simplified. Certain tenets are fundamental to the early intervention service delivery system and a number of service delivery issues arise from the basic model. These tenets and issues are discussed in the following sections.

BASIC TENETS OF EARLY INTERVENTION

ASHA (1989) emphasizes four basic principles that should be included in an early intervention service delivery system by stating that services should be comprehensive, community-based, family-centered and that services should be coordinated adequately. Children who are considered to be at-risk or display an established risk often have complex and diverse developmental and health needs and an early intervention service delivery system should provide a comprehensive array of services to meet the needs of these children within their communities (Guralnick, 1997; ASHA, 1989).

The importance of the context in which development takes place is increasingly recognized (Thurman & Widerstrom, 1990). This recognition led to the inclusion of parents and families within the early intervention process (Guralnick, 1997). The comprehensive nature of early intervention service delivery necessitates the effective coordination of the different services that infants and toddlers with special needs often need to receive to prevent the fragmentation and duplication of services (Guralnick, 1997).

SERVICE DELIVERY ISSUES PERTAINING TO THE EARLY INTERVENTION SERVICE DELIVERY MODEL

Different **settings of service delivery** are discussed in literature, these include centre-based services, home-based services as well as a combination of home- and centre-based services (Rossetti, 1996). Centre-based early intervention services are provided within the context of an early intervention centre, whereas home-based services are provided at the home of the family with the infant or toddler with special needs (Rossetti, 1996). Within an centre-based setting parents have greater access to professionals and more

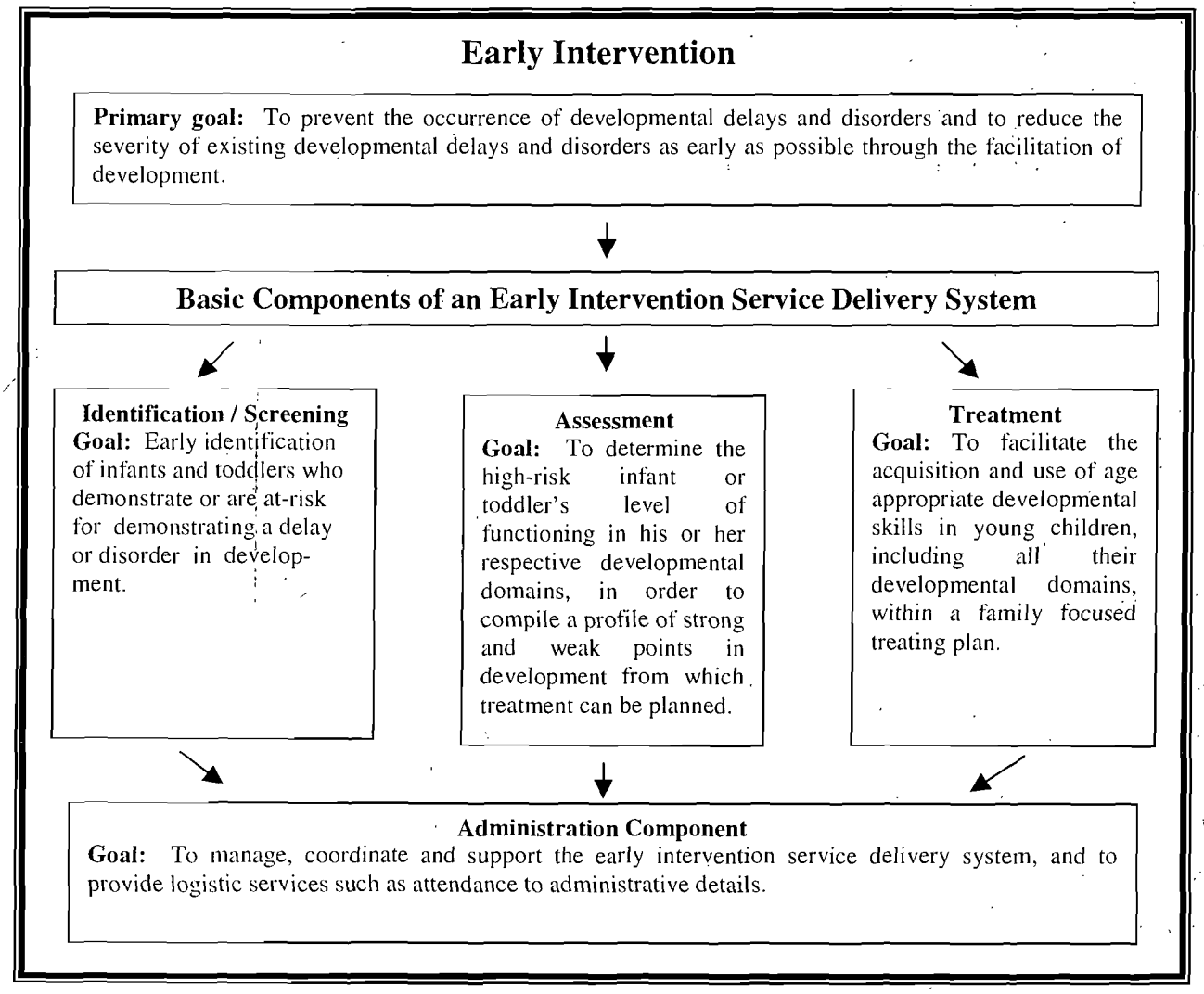

FIGURE 1: Basic model of an early intervention service delivery system (conceptualized from Mitchell & Brown, 1991; Baird & McConachie, 1995; Rossetti, 1996).

opportunities to meet other parents with children with special needs, but the home environment utilized by the home-based approach is considered to be a more natural and functional context in which to provide services (Rossetti, 1996)

PL-457 made the **involvement of a team** in early intervention mandatory and since teamwork is no longer an option but a necessity in the USA, a renewed focus was placed on ways teams can be organized in effective ways (McGonigel & Garland, 1995). Three models of team involvement in early intervention are described by numerous authors, namely multidisciplinary teamwork, interdisciplinary teamwork and transdisciplinary teamwork (McGonigel & Garland, 1995; Ferguson & Brynelson, 1991; Rossetti, 1996).

Multidisciplinary teamwork is considered to be the least collaborative of the teamwork models and the functioning of multidisciplinary teams have been described as similar to parallel play in young children - 'side by side but separate' (Peterson, 1987 p. 484 in McGonigel & Garland, 1995). The interdisciplinary model of service delivery allows for more interaction and collaboration between team members by providing a framework for interaction between team members (McGonigel & Garland, 1995). Assessments are carried out by each team member separately and a meeting is scheduled where each professional shares his or her assessment findings and views. The parents are usually considered as team members and the services of a family service coordinator (case manager) are utilised to co-ordinate the process (Ferguson & Brynelson, 1991).

The transdisciplinary team model of service delivery is currently viewed as one of the most efficacious ways to provide services to infants and toddlers with special needs and their families (Briggs, 1997). During transdisciplinary team functioning the focus is on the sharing of information, skills and knowledge while professionals cross traditional disciplinary boundaries and parents are viewed as equal team members (Rossetti, 1996). Clinically, transdisciplinary team work is carried out by conducting a play-based arena assessment where all team members are present but only one team member elicits a sample of behaviour from the child. The team members will then make inferences pertaining to their area of expertise and share it with the team after the assessment (McGonigel & Garland, 1995). Intervention is planned in a collaborative manner and one team member is chosen to provide all the services to the child and family while consulting with the other team members (Rossetti, 1996).

The choice of a team involvement model will depend largely on the orientation of the team members. If the team members are not prepared to cross disciplinary boundaries and have trouble with role release, the transdisciplinary model is not likely to work. The choice of a team involvement model is not always an either or issue since some teams prefer to switch between multi- and transdisciplinary functioning in order to meet specific family needs (Ferguson & Brynelson, 1991).

COMMUNICATION-BASED INTERVENTION WITHIN THE EARLY INTERVENTION SERVICE DELIVERY MODEL

Communication-based assessment and intervention are described as an early intervention approach focussing on the communication development of infants and toddlers with special needs (Rossetti, 1996; McDonald & Carroll, 1995; ASHA, 1989). Speech-language therapists are qualified to provide these services and have traditionally provided communication-based services to infants and toddlers with special needs, but in accordance with the transdisciplinary team model it is increasingly advocated that other team members also adapt communication-based intervention as approach to service delivery (Rossetti, 1996; McDonald & Carroll; 1995).

The following reasons are cited why communication-based intervention should be incorporated into service delivery by team members other than the speech-language therapist:

- communication is often the primary vehicle used by team members for assessment and intervention;
- goals would be reached more easily if professionals can communicate more readily with infants and toddlers;
- children learn communication during every social contact and the right strategies used consistently could assist them in their learning process (Rossetti, 1996; McDonald & Carroll, 1995).

As early communication skills are considered to be the best predictor for future school success, it is imperative that early communication skills be facilitated (Capute, Palmer & Shapiro, 1987). The utilisation of communication-based intervention strategies by team members other than the speech-language therapist can assist in the further facilitation of communication development in infants and toddlers with special needs.

CRITICAL REVIEW OF THE BASIC EARLY INTERVENTION SERVICE DELIVERY MODEL

South Africa consists of a unique mixture of developed and developing components, and this fact **limits the relevance of service delivery models** created in developed countries such as the USA, Canada and Britain (Louw, 1998). Whereas legislation played a significant role in the development of early intervention programmes in the USA, the South African government has not yet seen the need to mandate and fund early intervention services to infants and toddlers with special needs. The **lack of legislation and funding** may be due to limited resources available in South African as issues such as unemployment, lack of housing and inadequate health care facilities are considered priorities for funding (Schoeman, 1991).

Apart from legislative and financial challenges, a **limited number of speech-language therapists** are currently practicing in South Africa and Uys (1993) estimates that by the year 2000 there would be a shortage of approximately 5000 communication pathologists in South Africa. The number of speech-language therapists competent to deliver early communication intervention services is further limited by the fact that not all are trained in early intervention on an undergraduate level. Those who qualified before early intervention was part of university curricula and did not attend any continuing education events on the subject, can not be considered as qualified to deliver early intervention services to infants and toddlers with special needs (Louw, 1998).

Certain **linguistic and cultural constraints** also exist in the diverse South African context (Pickering et al., 1998). More than eleven languages are spoken in South Africa

and each linguistic group has unique cultural practices (Department of National Education, 1996). Assessment and intervention material developed in a western culture like the USA and Canada may not be culturally appropriate in South Africa and needs to be applied with care (Louw, 1998). The shortage of speech-language therapists trained in early intervention is magnified against the background of cultural diversity in South Africa since a further shortage of culturally and linguistically diverse speech-language therapists exists although training institutions have applied policies to alleviate the discrepancies of the past (Uys & Hugo, 1997).

Certain elements of the basic model of early intervention service delivery have the potential to be applied with success in South Africa. **Community-based service delivery** may be a successful strategy in South Africa, since the national health system has been changed to district based primary health care in recent years (Government Gazette, 1997). Health care facilities providing primary health care are placed within communities providing a potential platform from which to launch early intervention services in all communities, both developed and developing.

Other elements of the basic early intervention service delivery model which could also be applied successfully within the district based primary health care system in South Africa are **home visiting and family centered care**. Bryant & Maxwell (1997) indicated by reviewing several early intervention programmes with disadvantaged families that for very poor families home visiting may be beneficial. It is estimated that 61% of children in South Africa live in poverty (Government Gazette, 1997), and it is proposed that the home visiting approach to early intervention may provide a way to reach these children and their families.

The **transdisciplinary model of team functioning** also has the potential to contribute to early intervention service delivery in South Africa (Louw, 1998). The general shortage of speech-language pathologists can be accounted for in part by empowering other professionals or volunteers to provide communication-based early intervention services. Speech-language pathologists providing early intervention services can be involved in a consultative capacity and reach more infants and toddlers with special needs in this way.

From the discussion above it is clear that although the international literature provides a useful framework for early intervention, the speech-language pathologist providing early intervention services, especially in the developing context in South Africa, needs to be critical and creative when providing early intervention services in the context in which he/she works.

COMMUNITY-BASED INTERVENTION MODELS

Community-based rehabilitation (CBR) grew out of the need to provide rehabilitation services to people with disabilities within the context of their families and greater communities especially in developing countries. It meant a shift away from institutionalized care where people with disabilities often received care in isolation from their families and greater communities (Chaudhury, Menon-Sen & Zinkin, 1995). A joint position statement issued by the International Labour Organization (ILO), the United Nation Educational, Scientific and Cultural Organization (UNESCO) and the World Health Organization (WHO) (ILO, UNESCO & WHO, 1994) provided a formal definition of CBR stating the following:

> 'Community-based rehabilitation is a strategy within community development for the rehabilitation, equalization of opportunities and social integration of all people with disabilities.
> Community-based rehabilitation is implemented through the combined efforts of disabled people themselves, their families and communities, and the appropriate health, education, vocational and social services.'

Although this definition serves as a guideline to many CBR programmes around the world, many variations exist amongst CBR programmes and it is generally accepted that there is no true blueprint for CBR programmes (Chaudhury et al., 1995). WHO advocates the use of the Primary Health Care (PHC) system as a platform from which to implement CBR programmes and places specific emphasis on health care issues as goals in CBR (WHO, 1995; Chaudhury et al., 1995; Werner, 1987).

As South Africa recently changed its national health care system to PHC, the discussion in this article will focus on CBR as an integrated part of the PHC system.

Some comments on the use of the term community-based *rehabilitation* are warranted. The word rehabilitation implies the tertiary form of prevention where rehabilitation is provided for an established disorder. The term CBR therefore excludes primary and secondary prevention activities, and since early intervention is considered as secondary prevention, it would be impossible to integrate the two service delivery models if one excludes the other by definition. It is suggested that the term community-based intervention (CBI) is used to provide a basis from which primary, secondary as well as tertiary prevention activities can be executed.

Based on the basic definition provided above, the main aim of CBI is to bring about a balance between the needs and the resources of disabled people in a given community through community mobilization, initiative and participation (Lombard, 1991; ILO, UNESCO & WHO, 1994). This aim emphasizes community participation and initiative in CBI but WHO (1995) as well as Chaudhury et al., (1995) acknowledge that CBI seldom starts without a stimulus from outside the community making the community aware of it's needs and resources to deal with those needs. The external stimulus can be PHC personnel, non-governmental organizations involved with disabled people or academic institutions (Chaudhury et al., 1995).

Two types of goals are used in order to achieve the main aim of CBI namely task goals and process goals (Lombard, 1991). Task goals are considered to be mainly focused on obtaining results in the form of concrete tasks to be done or securing specific resources whereas process goals focus on the development of the people through the process of achieving a specific goal (Lombard, 1991; Swil, 1982). Both task- and process goals are viewed to be essential in CBI but process goals like community participation, empowerment and responsibility are considered to be more important than simply the completion of tasks (Swil, 1982). It is postulated that if a community went through a self-development phase (process goal) while striving for a specific goal (task goal) that the community will show ownership towards the desired goal and will possess the necessary

skills and responsibility to maintain that specific goal (Lombard, 1991).

Figure 2 provides a graphical representation of a basic model of a CBI programme within a PHC system. As indicated in figure 2, two broad functional groupings are typically involved in CBI in a given community, namely managerial and consultative participants and local (or direct) participants in the CBI process (Werner, 1987; Chaudhury et al., 1995). The managerial and consultative participants consist out of the government institution responsible for health policies (ministry of health), the regional hospital with specialized services as well as the local primary health care clinic. These participants are responsible for mandating, planning and staffing CBI services in communities. In addition to these roles the managerial and consultative participants are also involved in the training and support

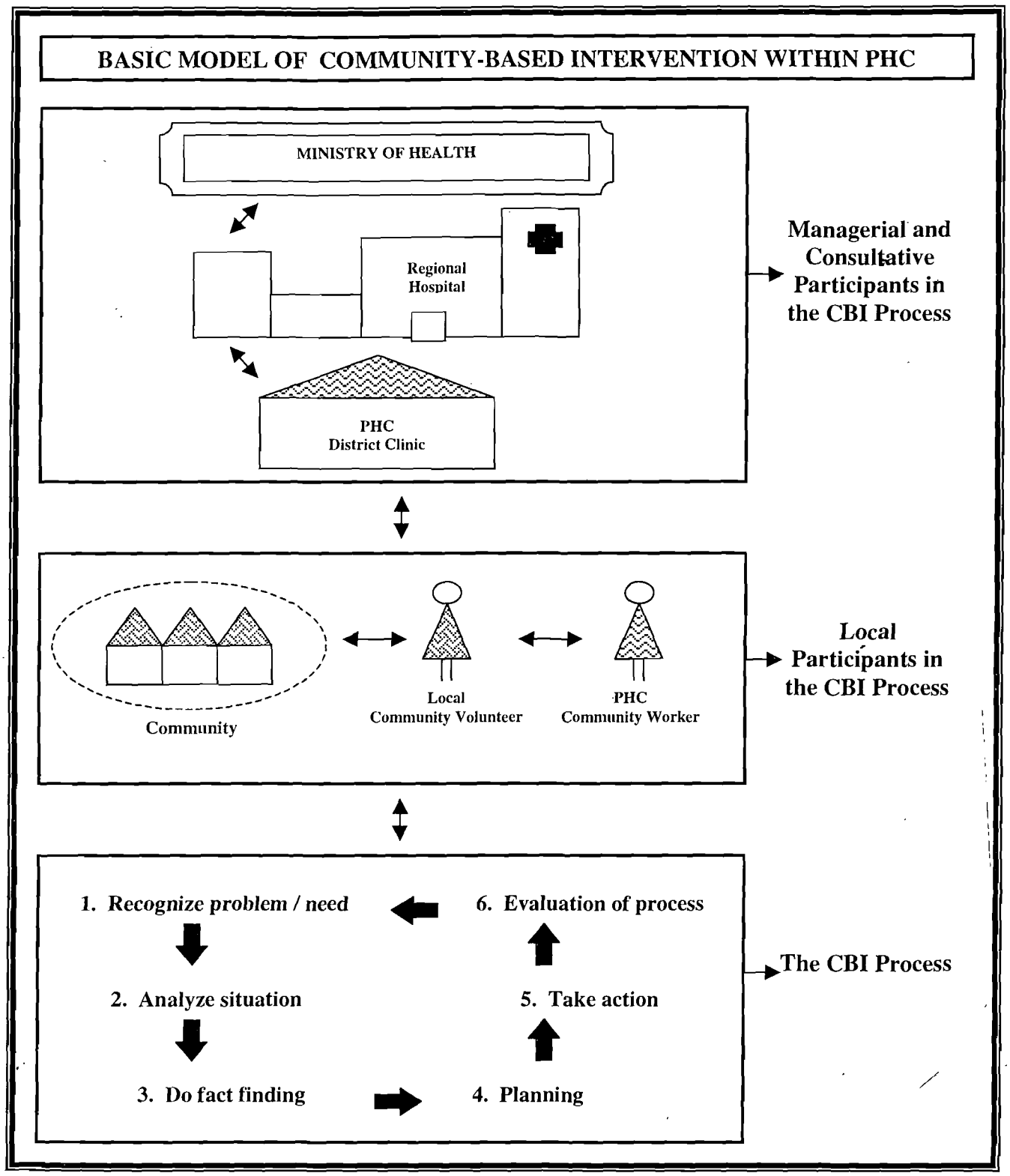

FIGURE 2: Basic model of community-based intervention within a primary health care system (Conceptualized from Werner, 1987; Dunham (1970) in Swil, 1982; Chaudhury et al., 1995; WHO, 1995; Lombard, 1991)

of primary health care community workers and the regional hospital and primary health care clinic serve as referral facilities offering specialized services and consultation to community workers and communities (WHO, 1995; Werner, 1987). Academic institutions and non-governmental organizations can also be managerial and consultative participants in CBI (Chaudhury et al., 1995), but as these two structures are not typically associated with PHC it was not included in the basic model of CBI within PHC.

The local participants in the CBI process as indicated in figure 2 consist of the community itself, the local community volunteer as well as the PHC community worker (Werner, 1987; WHO, 1995). The PHC community worker can be of any primary discipline like physiotherapy, occupational therapy, PHC nursing and speech-language therapy or the person can be a mid-level health worker with a two year training in basic health issues (WHO, 1995; Government Gazette, 1997). The role of the PHC community worker is to facilitate the CBI process, to serve as a consultant to the community and to make the resources of the PHC system known to the local community (WHO, 1995).

The local community volunteer can be any person who is willing to serve the community as a volunteer in conjunction with the PHC community worker. Chaudhury et al. (1995) as well as Werner (1987) state that a person with a disability may be the ideal candidate to be a local community volunteer since he or she usually has first hand experience with issues relating to disabilities. The local community volunteer may also be a group of people instead of an individual (Werner, 1987). The role of the local community volunteer (or group of volunteers) is to work in conjunction with the PHC community worker to introduce the community to CBI and to assist them through the whole CBI process (Werner, 1987).

The community is the key role player in the CBI process and a community can be defined as a group of people living in the same geographical area and utilizing a mutual infrastructure (Lombard, 1991). As community participation and initiative are key components of CBI, the role of the community in CBI can be described as one of self-development during which the community grows to recognize needs and resources within its own ranks and utilize actions to bridge those needs with available resources (Lombard, 1991; Werner, 1987).

The CBI process as described in figure 2 is derived from a problem solving approach to community work from a social work perspective by Dunhum (1970) in Swil (1982). Dunhum's approach to community work (Dunhum (1970) in Swil, 1982) is executed by the PHC community worker, local community volunteer and the community and starts with step one as the **recognition of the problem or need.** This step involves the creation of an awareness amongst a community that a certain need (for example, inadequate facilities for disabled people) exists (Lombard, 1991).

The next step is described by Dunhum (1970 in Swil, 1982) as **situation analyses** and involves compiling a profile of existing needs and potential resources in a community. When a profile of the community has been compiled the next step namely, **fact finding,** is executed (Dunhum (1970) in Swil, 1982). The specific actions during the fact finding phase will largely be determined by what the perceived needs and resources of the community are.

The next step described by Dunhum (1970 in Swil, 1982) is **planning** and Werner (1987) states that it is essential that the community be fully involved in decision making and the setting of realistic goals in order to ensure that the community possesses a sense of ownership over the project. The next logical step after the planning has been done, is for **action** to be taken by the community (Dunhum (1970) in Swil, 1982). The last step in Dunhum's approach (Dunhum (1970) in Swil, 1982) is the **evaluation of the process** and WHO (1995) describes it as a crucial element in CBI in order to ensure that the process has been successful and to gain understanding of how the process can be enhanced within the community.

The description of a basic model of CBI within PHC is a simplified description of a complicated system where considerable variations exist between programmes (Chaudhury et al., 1995). The PHC approach has also been depicted in a simplified manner in the model in figure 2 since in practice one PHC district clinic will often serve more than one community and a substantial number of PHC district clinics are associated with one regional hospital (Government Gazette, 1997). For the scope of this article, the basic model does however supply an adequate point of departure for the integration of early communication intervention into a CBI model if cognizance is taken of the following critical review of the CBI model.

CRITICAL REVIEW OF THE COMMUNITY-BASED INTERVENTION (CBI) MODEL WITHIN PRIMARY HEALTH CARE

One of the problems identified in CBI is that of **collaboration** between the different participants in the CBI process (Chaudhury et al., 1995). The needs and resources that the community perceives may not be those that the other participants in the CBI process anticipated and different sections of the community may have different perceptions of the needs, resources and action that needs to be taken (Chaudhury et al., 1995). Another potential problem in CBI is that of **conflicting priorities** where issues like extreme poverty, violence, hunger and homelessness in a community may override the PHC community worker's priority of for example facilitating care for children with disabilities in a community (Chaudhury et al., 1995).

Chaudhury et al. (1995) warns that CBI cannot be implemented within **selective PHC** where fundamental principles of PHC (for example community participation and comprehensive, integrated health care) are not adhered to. A full implementation of comprehensive and integrated PHC is therefore necessary before CBI can successfully be integrated into PHC. The PHC system in South Africa is still in its infancy as it was only formally instituted in 1997 (Government Gazette, 1997) and limited personnel, support services, training in CBI and experience may pose a unique challenge to CBI in South Africa. An essential element of CBI, namely the availability of **support services** like PHC clinics and regional hospitals, is imperative to the success of CBI programmes (Chaudhury et al., 1995). It will be unethical if a community is made aware of its needs but the PHC personnel is unable to provide resources or train local people to provide services.

Some obstacles to effective CBI may also lie within the **community itself**. A presupposition of CBI is that communities are eager to be empowered and are willing to take responsibility for their needs but communities are not always able to take responsibility (Chaudhury et al., 1995). The incapacity to take responsibility for a CBI pro-

gramme may be due to poverty and lack of infrastructure, lack of confidence in their own abilities or lack of interest in the goals of a specific project (Chaudhury et al., 1995). McConkey (1995) also warns that the **cultural perceptions** of a specific community towards disabilities may be a barrier to the successful implementation of CBI and a broad social change in attitude may be necessary as part of the CBI process. Another factor potentially influencing the success of a CBI programme is the availability and attitude of **local community volunteers**. They often have their own issues and problems within the community and it may have a detrimental effect on the CBI process (Chaudhury et al., 1995).

CBI should not be viewed as a low cost option for the poor in developing countries as even developed countries like the USA and Britain are implementing community-based care as part of comprehensive health services (Chaudhury et al., 1995). It is clear that the CBI process is not void of challenges, but it still is considered as an excellent way to provide services to people with disabilities within the context of their communities (Chaudhury et al., 1995).

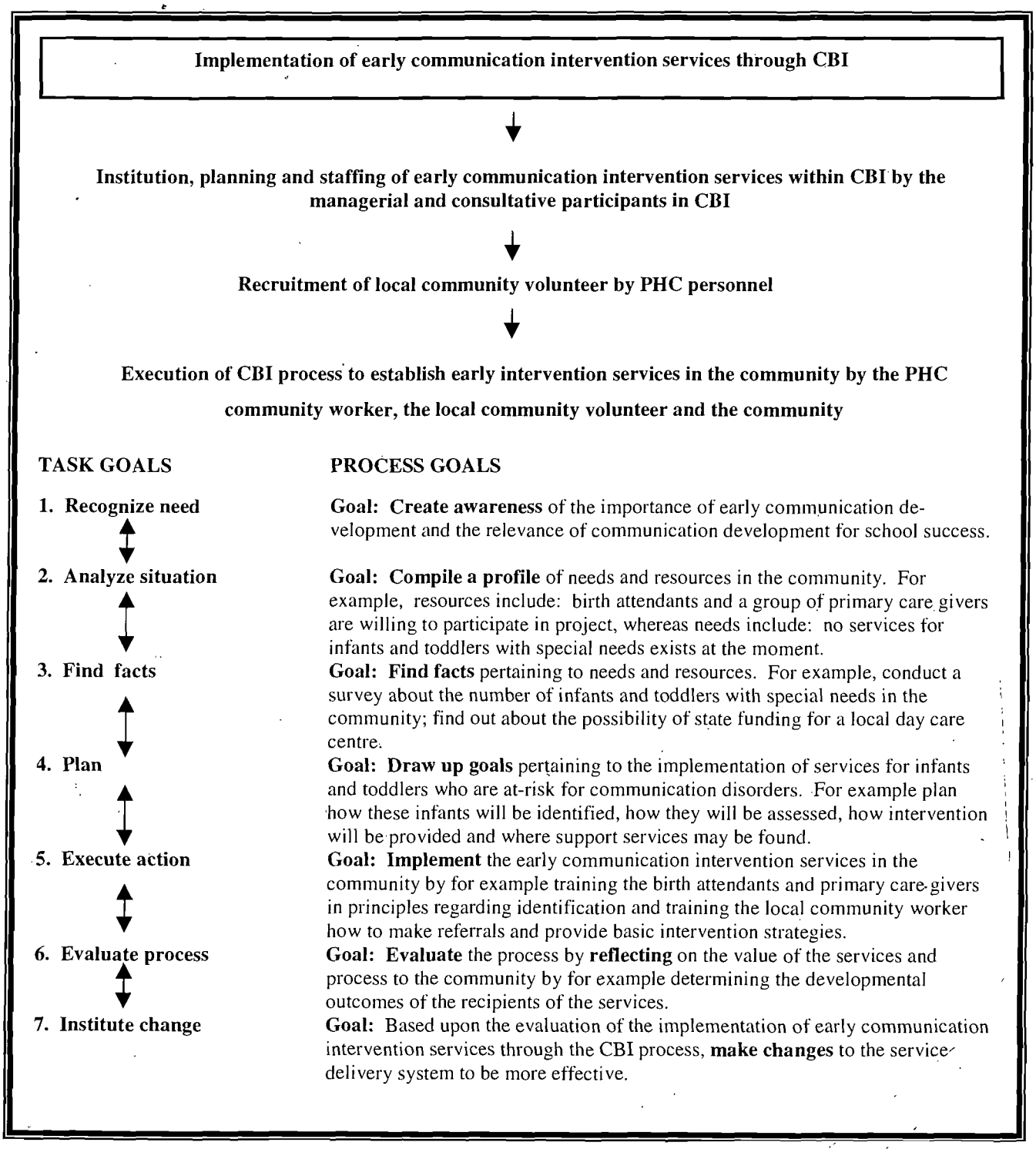

FIGURE 3: Basic implementation of early intervention services through community-based intervention (Derived from Dunhum, 1970 in Swil, 1982; McConkey, 1995)

INTEGRATED MODEL OF EARLY INTERVENTION SERVICE DELIVERY WITHIN COMMUNITY-BASED INTERVENTION

From the discussion of an early intervention service delivery model and a community-based intervention model it is clear that mutual objectives exist between these models of service delivery. Both models emphasize the role of the family in the intervention process, advocate the implementation of community-based services and focus on the empowerment and training of others (Louw, 1998). Early communication intervention can make a valuable contribution in the integration of the two models by placing emphasis on prevention whereas CBI can bring a new dimension into early communication intervention service delivery with its focus on community participation. The individual strengths of the two models integrated into one model of service delivery may provide a powerful tool for the primary, secondary and tertiary prevention of communication disorders through the participation of the community in South Africa.

The proposed integration of the two service delivery models is presented in two sections. Firstly, the implementation of early communication intervention services through CBI is discussed as a point of departure for the discussion on the integration of the two models. The integration of the two models is then discussed by referring to a case example of the functioning of early communication intervention service delivery within a CBI model.

Figure 3 provides a graphical representation of the implementation of early communication intervention services through a CBI model. As indicated in figure 3, the establishment of early communication intervention service delivery within a CBI model can start once the managerial and consultative participants in the CBI process (e.g. the Ministry of Health, regional hospitals and the primary health care clinics) have instituted legislation for early communication intervention to be applied through CBI, planned the implementation thereof and provided the necessary personnel to implement the process (Chaudhury et ál., 1995).

The next step in the provision of early communication intervention through the CBI process would be to recruit local community volunteers to participate in the process. Any person could be chosen to be a community volunteer as long as they are motivated, have literacy skills and have a positive respectful attitude towards people with disabilities (McConkey, 1995). O'Toole (1988) mentions that people with a higher qualification status often discontinue to be community volunteers because of other career opportunities available and may not be the most suitable candidates. A community volunteer should receive training in basic issues surrounding disabilities and the quality of the training will often determine the quality of the programme (McConkey, 1995). Training material about communication disorders for the training of community volunteers is available and involves basic issues pertaining to communication development and disorders (Werner, 1987).

The CBI process as derived from Dunhum (1970 in Swil, 1982) is used for the implementation of early communication intervention services through the combined efforts of the PHC community worker, the local community volunteer and the community. The task goals described in figure 3 are the steps outlined by Dunhum (1970 in Swil, 1982) with one addition namely the institution of change after the CBI process has been evaluated. This step was added by the authors to ensure continued community change and growth after the CBI process has been completed. This circular effect is further indicated by the double pointed arrows between the different steps of the CBI process (See figure 3).

The process goals are indicated by the highlighted words on the right of the task goals in figure 3 and it is presumed that the community would grow and change through the process of creating awareness, compiling a profile, finding facts, planning and implementing action, evaluating the process and instituting new changes. Examples are provided in figure 3 of the possible outcomes of the different steps in the CBI process.

Figure 4 provides a graphical representation of a case example of the functioning of early intervention service delivery that has been implemented through a CBI model as described above and serves as a practical example of the integration between the two models. As indicated in figure 4 three of the basic components of the early intervention service delivery system has been incorporated into the integrated model of early communication intervention through CBI, namely identification, assessment and treatment (See figure 1). It is supposed that the administration component is handled by the PHC personnel. The identification component of early communication intervention within the CBI model is conducted at community level by a member of the community (a birth attendant) in the case example in figure 4. In could also have been conducted by the local community worker, the PHC community worker or any other informed member of the community.

After the child with the established risk (e.g. cleft lip and palate) has been identified he and his family are referred to the local community worker and the PHC community worker. Although the local community worker and the PHC community worker are presented as an inseparable team in figure 4 it is often the case that they function individually with the PHC community worker acting as consultant for more than one local community volunteer (McConkey, 1995; O'Toole, 1988). The local community volunteer and the PHC community worker accompany the family to the PHC clinic where a PHC speech-language therapist conducts a communication evaluation and refers the child and his family for specialized assessment and intervention by a craniofacial team at the regional hospital if it is necessary.

The craniofacial team conducts whatever specialized assessments and interventions necessary and refers the child back to the PHC clinic, but stays available in a consultative manner. The PHC speech-language therapist then designs an individualized service plan in conjunction with the parents and the PHC community worker and community volunteer who will provide the hands-on intervention services to the family. If necessary, the PHC speech-language therapist provides training to the PHC community worker and the local community volunteer on cleft lip and palate and the associated communication and feeding problems and monitors the intervention process while providing support to the PHC community worker and the local community volunteer.

As the process described in figure 4 is a case example of the proposed integration of early communication and CBI service delivery models it is a simplified description of a system. In practice, one local community volunteer will be providing help to three to four families a week

(Chaudhury et al., 1995) and one PHC community worker will oversee a number of local community volunteers.

The integrated model focuses on the implementation of early communication intervention services through CBI, but if the basic tenets of early intervention are considered more accountable service delivery could be achieved if a comprehensive model of early intervention within CBI is followed. This would imply that all the developmental areas of infants and toddlers with special needs are considered in service delivery and would require the efforts of a comprehensive team of professionals like , occupational therapists, physiotherapists and social workers, which may not be available at PHC clinic level. If comprehensive early intervention services could be supplied through CBI, the transdisciplinary model of early intervention service delivery may provide valuable principles as to the functioning of a PHC early intervention team within a CBI model.

CONCLUSION

The dire need for early communication intervention services in the developing context in South Africa may be met by the implementation of the proposed integrated model of early communication intervention service delivery through CBI. In order for this model to be implemented an 'agent of change' or 'agents of change' are required to facilitate the process on governmental as well as community level. Werner (1987, p. 408) states that 'what is necessary is that the agent of change be someone who respects ordinary people, and is committed to helping them join together to meet their needs and defend their rights.' This is a task of enormous proportions but it is also the challenge currently facing speech-language pathologists delivering early communication intervention services in the developing context in South Africa. This challenge can be met by consistent efforts by speech-language pathologists on all levels: management, research, service delivery and training to ensure effective and accountable early communication intervention service delivery to the maximum benefit of infants and toddlers with special needs in the developing communities in South Africa.

REFERENCES

American Speech-Language-Hearing Association (1989). Communication-based services for infants, toddlers and their families. *ASHA*, 94, 32-34.

American Speech-Language-Hearing Association (1991). The prevention of communication disorders: tutorial. *ASHA*, Supplement 6.

Baird, G. & McConachie, H. (1995). Child disability services and interventions. In Zinkin, P. & McConachie, H. *Disabled Children and Developing Countries*. London: Mac Kieth Press.

Blackman, J.A. (1995). *Infants and Young Children Series*. Maryland: Aspen Publications.

Briggs, M.H. (1997). *Building Early Intervention Teams: Working together for children and families*. Maryland: Aspen Publications Inc.

Bryant, B. & Maxwell, K. (1997). The effectiveness of early intervention for disadvantaged children. In Guralnick, M.J. (Ed). *The Effectiveness of Early Intervention*. Maryland: Paul H Brookes Publishing Company.

Capute, A., Palmer, F. & Shapiro, B. (1987). Using language to

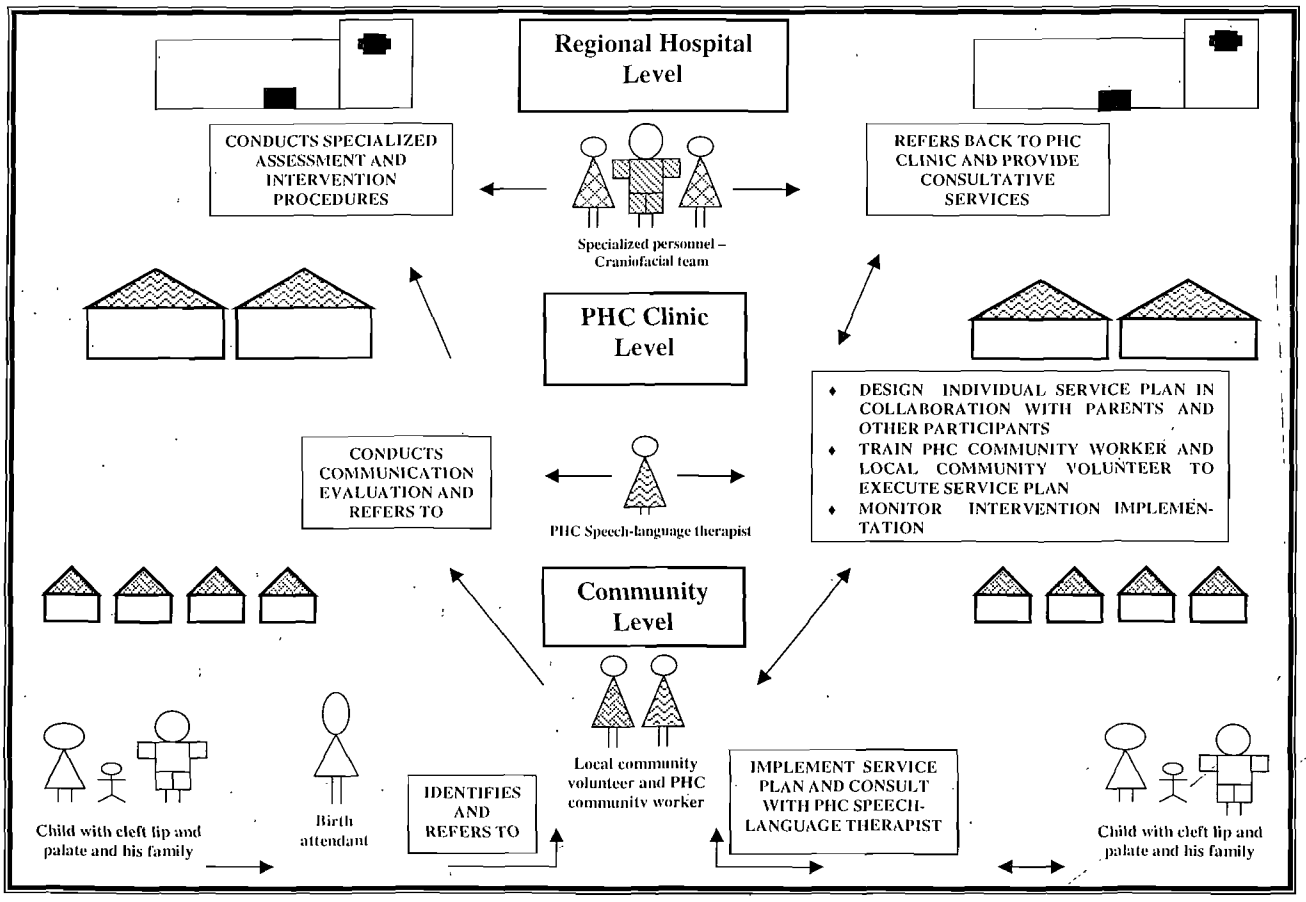

FIGURE 4: Case example of the functioning of early communication intervention service delivery within a CBI model (derived from Werner, 1987; McConkey, 1995; Chaudhury et al., 1995).

track development. *Patient Care,* 11,60.
Chaudhury, G., Menon-Sen, K. & Zinkin, P. (1995). Disability programmes in the community. In Zinkin, P. & McConachie, H. (Eds.). *Disabled Children and Developing Countries.* London: Mac Kieth Press.
Department of National Education. (1996). *South Africa's New Language Policy.* Department of National Education.
Ferguson, R.V. & Brynelson, D. (1991). Education and training of early intervention programme personnel. In Mitchell, D. & Brown, R.I. (Eds.). *Early Intervention Studies for Young Children with Special Needs.* London: Chapman and Hall.
Government Gazette. (16 April 1997). Notice 667 of 1997. Department of Health. *White paper for the transformation of the health system in South Africa.* Vol. 382 No. 17910.
Guralnick, M.J. (Ed). (1997). *The Effectiveness of Early Intervention.* Maryland: Paul H Brookes Publishing Company.
ILO, UNESCO & WHO. (1994). CBR. *Community-based Rehabilitation For and With People with Disabilities. Joint Position Paper.* Geneva: WHO, ILO; Paris: UNESCO.
Lombard, A. (1991). *Community Work and Community Development.* Pretoria: HAUM Tertiary.
Louw, B. (1998). Early Communication Intervention in the South African Context. *Lecture presented: Master's Degree Course,* University of Witwatersrand, Johannesburg.
McConkey, R. (1995). Early Intervention in developing countries. In Zinkin, P. & McConachie, H. (Eds.). *Disabled Children and Developing Countries.* London: Mac Kieth Press.
McDonald, J.D. & Carroll, J.Y. (1995). A partnership model for communicating with infants at-risk. In Blackman, J.A. *Treatment Options in Early Intervention.* Maryland: Aspen Publications.
McGonigel, M.J. & Garland, C.W. (1995). The Individualized Family Service Plan and the early intervention team: team and family issues and recommended practices. In Blackman, J.A. *Working with Families in Early Intervention.* Maryland: Aspen Publications.
Mitchell, D. & Brown, R.I. (1991). *Early Intervention studies for young children with special needs.* London: Chapman and Hall.
O'Toole, B. (1988). A community-based rehabilitation programme for pre-school disabled children in Guyana. *International Journal of Rehabilitation Research,* 11(4), 323-334.
Pickering, M., McAllister, L., Hagler, P., Whitehill, T.L., Penn, C., Robertson, S.J. & McCready, V. (1998). External factors influencing the profession in six societies. *American Journal of Speech-Language Pathology,* 7(4), 5-17.
Rossetti, L.M. (1996). *Communication Intervention: Birth to Three.* San Diago: Singular Publishing Group Inc.
Schoeman, J.H. (1991). Development problematics of Southern Africa. In Lombard, A. *Community Work and Community Development.* Pretoria: HAUM Tertiary.
Swil, I. (1982). *Community Work Theory and Case Studies - a Primer.* Johannesburg: Juta & Company Ltd.
Thurman, S.K. & Widerstrom, A.H. (1990). *Infants and young children with special needs: a developmental and ecological approach.* Maryland: Paul H. Brookes Publishing Cooperation.
Uys, I.C. (1993). Communication Pathology: Teaching for the Future. *The South African Journal of Communication Disorders, 40, 3-9.*
Uys, I.C. & Hugo, R. (1997). Speech-language pathology and audiology: transformation in teaching, research and service delivery. *Health South Africa,* 2(2), 23-29.
Werner, D. (1987). *Disabled Village Children.* Palo Alto: The Hesperian Foundation.
World Health Organisation. (1995). *Disability Prevention and Rehabilitation in Primary Health Care. A guide for district health and rehabilitation managers.* World Health Organization, Rehabilitation.
World Health Organisation. (1997). *Trends in Health Status.* Http://lynx.who.ch/programmes/ inf/pub-inf.htm.