The Nature and Management of Communication Disorders in a Rural Area : The Role of the Community Speech and Hearing Therapy Workers

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ABSTRACT

Six hospitals where Community Speech and Hearing Therapy Workers (CWs) are working in Gazankulu were visited. Firstly, data were collected from records, reports and case files over an 18 month period to determine the nature and prevalence of the communication disorders seen by the CWs. Secondly, the CWs were interviewed about their work situation, organisation of their time and intervention strategies used with communicatively disordered people in order to evaluate the efficacy of their work. Methodological issues requiring consideration when undertaking this type of research are discussed. The results are discussed in terms of the implications for course modifications as well as policy decisions within the profession of Speech and Hearing Therapy.

OPSOMMING

Ses hospitale in Gazankulu waar Gemeenskapspraak- en gehoorterapiewerkers (GWs) werksaam is, is besoek. Die aard en voorkoms van die kommmunikasieprobleme wat deur die GW. behandel word, is bepaal, deur data uit verslae, rekords en gevalslêers oor 'n periode van 18 maande te versamel. Verder is daar onderhoude met die GWs ten opsigte van hul werksituasie, tydsbenutting en behandelingstrategie gevoer, met die doel om werkseffektiwiteit te evalueer. Metodologiese aspekte wat in hierdie tipe studie oorweeg moet word, word bespreek. Die resultate word in terme van die implikasies vir die modifikasie van die kursus sowel as die beleidsbesluite in die Spraak- en gehoorterapieberoep, bespreek.

It is estimated that 8 -10% of the South African population have a communication disorder (Aron, 1984; Penn, 1978). This figure is borne out by estimates of communication problems in other parts of the world (Van Riper & Emerick, 1990). If one looks at the percentage of communicatively impaired people who have access to speech and hearing therapy services it becomes apparent that in South Africa (Aron, 1984; Drew, 1982) and indeed in the developing world generally (Goerdt, 1989) there is a dearth of speech and hearing services, especially in rural areas (Aron, 1984). This is also true for most health and rehabilitation services in South Africa (Price, 1986; Donald, 1991). Faced with this problem the Department of Speech Pathology and Audiology at the University of the Witwatersrand implemented the two year Diploma in Community Speech and Hearing Therapy in 1984. By the end of 1991, 58 students had qualified as Community Speech and Hearing Therapy Workers (CWs). The Diploma course is "intended to train students to operate quite differently from students in the degree course. In the former the emphasis is on preventive and promotive work, equipping students to follow the principles of community work so that they can function within a primary health care model. In the degree course students concentrate on detailed, in-depth curative work with a strong research orientation" (Diploma Course Review, 1991, p.2). The implication is that the CWs should be based in the community and would only be involved in the "provision of elementary speech and hearing therapy" (South African Medical & Dental Council, (SAMDC) 1985).

The implementation of this course, with a clear emphasis on community work, was not accidental but was coherent with a world wide move towards developing appropriate health and rehabilitation services which would overcome shortages of person power. This movement lead to the concepts of Primary Health Care (PHC) (Walt & Vaughan, 1981) and Community Based Rehabilitation (CBR) (Helander, Nelson, Mendis & Goerdt, 1989) both of which advocate the use of mid- and primary- level workers to ensure a more accessible and more cost effective health and rehabilitation service (Helander et al., 1989; Walt & Vaughan, 1981) as well as a strong emphasis on promotive and preventive services (Walt & Vaughan, 1981).

Delaney and Malan (1984) have pointed out that in order to "develop a professional identity that has relevance to our situation and which will ultimately permit a professional practice which bears a direct and meaningful relationship to the population it serves, ... a comprehensive understanding of the requirements of both the patient and clinician populations is necessary" (p.76). They have suggested that this understanding will feed into the development of appropriate training. This point is echoed a number of times in the Diploma Course Reviews written by staff of the Department of Speech Pathology and Audiology (Review, 1991) in which the following issues have been highlighted. Firstly, there is not sufficient information concerning the nature and prevalence of communication problems in areas of South Africa other than the White middle class communities. This prevents the achieve-

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ment of the necessary, comprehensive understanding of the patient population highlighted by Delaney and Malan (1984). Secondly, there has not been any formal evaluation undertaken to assess the efficacy of the CWs in dealing with communication problems. There is an annual workshop held at the University of the Witwatersrand to which qualified CWs are invited (Review, 1986). This forum has provided the University staff with much valuable information concerning the nature of the problems (both communication disorders and workplace issues) facing the CWs but it is limited in that it does not provide detailed information about the nature of the communication disorders nor evaluate the CWs in their workplace. The need for further information on communication problems and for an evaluation of the CWs work provided the impetus for the present study.

The implementation of the diploma course was not without controversy. The criticisms levelled at the implementers, but apparently not formally documented, included fears of the courses being a second rate qualification aimed largely at Blacks, because the need for services is greatest in the Black areas. Furthermore, the danger of setting up such a course is that it then becomes too easy for the rest of the profession to ignore the need for changing the profession to meet the needs of South Africa. These criticisms raise important issues which require careful debate but which is beyond the scope of this paper.

It is an easy matter to see a need. It is a more complex matter to determine a feasible methodology which will provide the necessary information in an acceptable manner. The adoption of the PHC and CBR approaches has led to a move away from using traditional methodologies for the evaluation of these approaches. Miles (1991) has described this development in Pakistan where lack of baseline data, trained research assistants and limited access to updated literature has encouraged the use of innovative and unorthodox methodologies which produce meaningful results for the communities concerned. Miles (1991) has made the further point that there are "complex multi-causal relations discernible in rehabilitation studies" which require "flexible and holistic approaches" (p.2). In a similar vein, Feuerstein (1986) has described a participatory evaluation methodology where the "approaches are ... tailored to suit the real contexts of development programmes, and the abilities and technical levels of the participants" (p.ix). The two methodological approaches described above form one end of a spectrum of "social, non-traditional" (Miles, 1991) research methods which move from strongly community-based, participatory approaches through to more externally controlled epidemiological approaches. Both ends of the spectrum have their advantages and disadvantages. The participatory model allows for strong community involvement in the research and therefore enhances the commitment of the community to the research and its findings (Feuerstein, 1986). However, the source of data (eg. records, files) is often problematic as there are inconsistencies and gaps in the records especially if these are not seen as a priority (Miles, 1991). The uses of epidemiological research include determining the extent of health problems in the community, developing the basis for prevention programmes, and evaluating the effectiveness of preventive or therapeutic programmes (Yach & Botha, 1986). Yach and Botha (1986) have listed three types of epidemiological study, viz. descriptive, analytical and intervention. A descriptive study aims to quantify the size or extent of a health problem; an analytical study looks at why a health problem exists; and an intervention study is used to assess the effectiveness of a treatment or modification. In ideal circumstances, health planning should start with a descriptive study, move on to an analytic one and end with an intervention study (Yach & Botha, 1987). This process should also be applied to the field of rehabilitation. A well documented method of doing descriptive studies is the survey method (Yach & Botha, 1987) which provides a well structured method for data collection.

Miles (undated) has provided an insightful and critical review of the "uses and abuses of surveys in service development". She has stated that disability surveys are often undertaken by outside agencies as health planners believe that these will help in the development of services for disabled people. Her criticisms are that there is already sufficient relevant data for planning purposes and that further data should be obtained through the existing services and not before services are set up. Furthermore, she has noted that "surveys can be wasteful or even counter productive (and) service development should take priority" (p. 1).

Having set out the history and aims of the diploma course and having outlined a number of methodological considerations, I will now contextualise the present study. The purpose of the study is to address the needs discussed above : the need for further information concerning the nature and prevalence of communication disorders and the need for a formal evaluation of the work of the qualified CWs. The information obtained could then be used in modifying the diploma course where necessary as well as informing rehabilitation policy development.

METHOD

In view of the methodological issues discussed above, it was necessary to use a methodology which incorporated aspects of both descriptive study and participatory evaluation methods. The descriptive study method (Yach & Botha, 1986) was used for looking at the nature and prevalence of communication problems; and aspects of participatory research (Feuerstein, 1986) were used for evaluating the efficacy of the CWs, viz. the use of tape recorded interviews and discussions, observations and perusal of written information such as records, case files and departmental reports. The interviews and discussions were used as a means of involving the CWs in the evaluation process so that the results would then be more meaningful and useful to them. The study does not fall into the category of 'wasteful surveys' as described by Miles (undated) as it started from the existing service. This however, was not unproblematic as it provided information only on those disorders presenting themselves to the CWs and not the comprehensive information that would have been provided by a full survey. Furthermore, although the term 'prevalence' is used, it is used in a broad sense and not in a strict epidemiological sense (Gerber, 1990). This is recognised as a limitation. The advantage of limiting the source of data to those disorders presenting themselves to the CWs is that all the records could be included without having to take a sample.

Aims

The aims of this study are twofold:

1. to determine the nature and prevalence of communication disorders seen by the CWs in a rural area
2. to evaluate the efficacy of CWs in a rural area.

The choice of Gazankulu as the rural area for study was made because of two factors. Firstly, the Wits Rural Facility, an extension of the University of the Witwatersrand, is situated on the border of Gazankulu, which makes this site accessible. Secondly, there were at the time of the study, 13 CWs working at 6 hospitals in Gazankulu, the Tsonga / Shangaan homeland

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situated in the North Eastern Transvaal, South Africa. There were two CWs based at each hospital except for one hospital which had 3 CWs. This is also the hospital which has had a speech and hearing service since 1986 when one of the first CWs to qualify started working there. At the remaining hospitals the speech and hearing services had only been in existence for 18 months prior to the collection of the data. All the CWs are Tsonga speakers and many of them also speak Northern Sotho.

A pilot study was conducted to ascertain the feasibility of obtaining the necessary information from the hospital records, reports and case files. The records of one of the hospitals were examined and it was clear from this that the records kept by the CWs would be a useful data collection source. Following this a meeting was held with the CWs in Gazankulu to discuss the study and its aims and to obtain their consent to participate in the study.

Data Collection

This took place during two days spent at each of the 6 hospitals. All records and reports for all cases seen by the CWs at the hospital, schools and outreach clinics were collected and photocopied for later data analysis; therapy files were perused to determine the type of therapy being given; and therapy and assessment sessions were observed. Formal interviews of the CWs were tape recorded for later transcription. The interview included a set number of areas for discussion as well as any other issues which arose outside of these. The areas covered dealt with the organisation of their work and time allocation for various functions (eg. travelling, therapy, ward rounds, community education), problems encountered in the management of various disorders, strengths and weakness of the training and issues of career development and professional advancement. Any queries which I had from looking at the records were clarified during the time spent with the CWs.

A number of problems was highlighted during the data collection. The records kept by the CWs lacked consistency in terms of the data given, for example, information concerning age, and diagnosis, was often omitted. Hence there was a number of cases that had to be categorised as 'unspecified' in terms of age and diagnosis. There were records of disorders seen at a school or outreach clinic but no indication was given of the total number of people screened. If this was the case in only one or two instances for a hospital the average number of people screened at the other clinics and schools by the same hospital, was taken. Lastly, there were some diagnostic categories (eg. speech disorders, hearing) which are very broad and require further clarification. Definitions of categories can be seen in Appendix A. Despite these shortcomings the data obtained were sufficiently precise to allow clear trends to emerge. The data could have been improved if regular visits to the CWs during the 18 month period had been undertaken to assess and advise on record keeping. This however was not possible due to geographical distances involved.

The time scale chosen for the study was the 18 month period starting in January 1990, the time at which most of the hospitals started providing speech and hearing therapy services, and ending in July 1991. All the data was collected during August and September 1991 by me.

As the records from all the hospitals showed similar trends the data from all the hospitals were pooled and analyzed in the following manner:

1. for the hospital records (in- and out-patients) the number of cases of each disorder seen was calculated relative to the total number of cases seen giving a proportional figure
2. for the clinics and schools, sufficient information was available on the total number of people screened and the number of these with a disorder allowing for a prevalence rate to be calculated.

The data were analyzed for three age groups: birth to 10 years, 11 to 16 years and above 16 years. This division was used to capture the differences between the high risk younger age group [high risk for hearing disorders - especially middle ear infections (McPherson & Holborow, 1981 - 1983; WHO, 1992) and speech and language delays]; the lower risk adolescent group; and the adult group [at risk for the whole gamut of acquired communication disorders]. A fourth category, 'unspecified', was used for all the record entries which did not provide ages.

RESULTS

1. The Nature and Prevalence of Communication Disorders

a) **Hospitals.** Table 1 shows the types of disorders seen at the 6 hospitals (including both in- and out-patients) and the proportion of each type of disorder relative to the total number

Table 1: Type of Problems and Proportion of Each Relative to the Total Number of Patients seen in 6 Hospitals in the Period January 1990 to July 1991

Type of problem	Number of cases	Percentage relative to total N = 2305
Hearing	1040	45.1
Hearing Rechecks	167	7.3
Speech	90	3.9
Cerebral Palsy	71	3.1
Mental Retardation	66	2.9
Aphasia	58	2.5
Speech & Language	41	1.8
Hearing Aid Fitting	37	1.6
Learning problem	34	1.5
Other	25	1.1
MR + CP	17	0.8
Voice	15	0.7
Closed Head Injury	14	0.6
Stuttering	14	0.6
Unspecified Assessments	8	0.3
Cleft Palate	6	0.3
Non-verbal	4	0.2
Learning Rechecks	3	0.1
Filling Forms	579	25.0

KEY: MR = Mental Retardation
CP = Cerebral Palsy

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of patients seen during the period January 1990 to July 1991. From the table it is clear that hearing disorders are the most common types of disorders seen by the CWs at the hospitals. These include conductive, middle ear problems as well as sensori-neural problems. Speech disorders, cerebral palsy (CP), mental retardation (MR), adult acquired aphasia, speech and language disorders (predominantly in children), and "learning problems", a category the CWs use to signify children not coping at school, form the bulk of the remaining disorders. Voice, stuttering, closed head injury, and cleft palate are not common problems. Of the total number of cases seen, 25% comprised people who came for "completion of forms". These forms are for disability grants or, more commonly, application forms for a teacher training college which requires candidates to provide information on their hearing and vision status. Most of these occurred at one hospital. Finally, as expected, the child (birth to 10 years) and adult groups (older than 16 years) yielded the greatest numbers of disorders. Not only were patients of the "one off" category seen, but a number of patients was seen for therapy at the hospital. These were ward in-patients with aphasia or dysarthria, as well as some out-patients, mainly stutterers and speech and language impaired children. Very few patients however, attended regularly for therapy.

b) **Outreach Clinics.** These include visiting points, where there is no building and without a nurse in permanent attendance, and clinics where there is a clinic building with a nurse in attendance. Table 2 gives details of the types of disorders seen in the clinics as well as the total number of disorders relative to the total number of people screened. The number of people screened refers to three hospitals only out of the five who do clinic visits, as they were the only ones who provided information concerning the total number of people screened as well as details of the types of disorders. In terms of ages the majority of the people screened were young children, adult women and elderly people. Hearing disorders made up 90% of the disorders seen with otitis media and impacted wax being the most common of the hearing disorders. There are a number of possible reasons for this high proportion of hearing disorders. The first relates to procedural aspects. The CWs screen for hearing rather than for communication disorders generally. Furthermore, the screening involves an otoscopic examination together with a few questions regarding speech, language and hearing status. Secondly, this high proportion reflects the reality of disadvantaged rural areas where otitis media is clearly a significant problem (WHO, 1992; McPherson & Holborow, 1981-1983; Brobby, 1989).

c) **Schools.** Only preschools and primary schools were visited, and usually the lower classes were screened. There was often a scattering of children from the higher classes who were referred by the teachers for assessment following educational talks on communication disorders. Table 3 summarises the results of school screening carried out in 38 schools. This involved only 4 of the hospitals as one hospital did not provide the necessary information for inclusion in the analysis and the last hospital does not have a policy of regular school visits. Of the total number of children screened 20.16% showed some type of disorder. Once more, hearing disorders account for over 90% of these. However, unlike the findings from the clinics, impacted wax accounted for 76.44% and otitis media for only 10.35% of the hearing disorders.

Table 2: Types of Problems and their Percentage Relative to the Total Number of Problems Seen at the Outreach Clinics of 3 Hospitals

Total number of people seen	12 154	
Total number of problems	1 471	Percentage of total = 12.10%
Type of problem	Number of cases	Percentage of total number of problems, N = 1471
Otitis Media	629	42.76
Impacted Wax	557	37.87
Painful Ears	70	4.76
Foreign Body	56	3.81
Otitis Externa	51	3.47
Other	42	2.86
For Hearing Test	31	2.11
Perforations	24	1.36
Speech & Language	10	0.68
Mental Retardation	1	0.07

2. Evaluation of CWs Efficacy

Many issues were raised by the CWs but as they are not central to this paper they will not be presented. Of significance, however, the following observations were noted from the discussions, interviews and the records.

a) The CWs are hospital based and go out into the community from this base. They are not community based. Their 'going out into the community' involves them in activities such as the giving of educational talks, screening, and some, but

Table 3: Total Number of Problems seen at 38 Schools (4 Hospitals) and the Percentage of the Different Types of Problems Relative to the Total Number of Problems

Total number screened	6799	
Total number of problem	1371	Percentage relative to total number = 20.16%
Type of problem	Number of cases	Percentage
Impacted Wax	1048	76.44
Otitis Media	142	10.35
Foreign Body	49	3.57
Painful Ears	34	2.48
Speech & Language	33	2.41
Other	30	2.19
Otitis Externa	15	1.09
For Hearing Test	8	0.58
Mental Retardation	6	0.44
Perforation	6	0.44

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minimal, follow up of cases in their homes. The main focus of the educational talks is on hearing and hearing disorders as they have identified this as a high priority need.

b) In all but one of the hospitals, two days a week are spent in the hospital and three days a week in the community. Transport is a big issue as the CWs often have to share transport with other health workers and therefore, have to fit their programmes into the time frames of the other workers. If there is no available transport they do not go out. At the hospital the CWs see people referred from the doctors, nurses and other rehabilitation workers within the hospital as well as patients referred after school and clinic visits for a full assessment. These assessments were not done at the visits due to shortage of time. Teachers, clinic nurses and individuals in the community also referred people to the hospital.

c) The CWs work together with other rehabilitation workers, viz. physiotherapy (PTAs) and occupational therapy assistants (OTAs) on specific cases such as adult aphasic people and CP children. However, they do not have properly structured rehabilitation teams except in one hospital. At the last hospital there is a well functioning rehabilitation team comprising occupational therapists, one speech and hearing therapist and two CWs, OTAs and PTAs. The work organisation of this hospital differs from the other hospitals in that they do not focus on school and clinic visits but instead, as a rehabilitation team, develop community rehabilitation projects such as support groups for mothers of CP children. It was apparent that this hospital also had a more overtly formulated policy regarding the prioritisation of needs. An example of this is their decision to target children as their main focus of work. It is important to note that this was not the only hospital with degreed therapists.

d) The CWs commented on a number of issues which are important to note. The first deals with the issue of whether they should do therapy. The CWs reported that they need to do therapy as they are faced with many cases requiring individual or group therapy. However, as the SAMDC scope (1985) specifies basic management of communication disorders, at one time it was thought to be inappropriate to teach the CWs how to do therapy. Although this attitude is no longer held, a number of qualified CWs have missed out on this training. They reported that this affects their credibility as they are unable to deal with a disorder comprehensively once it has been identified. A second issue relates to their confidence concerning the knowledge that they acquired on the course. Many of the CWs said that they felt most competent dealing with hearing screening and testing but lacked confidence in dealing with language disorders. This is borne out by my observations of their work in which language assessments and therapy were rudimentary with an emphasis on motor speech work (eg. tongue exercises, oral peripheral examinations) and vocabulary enrichment. These issues have implications for the course structure and teaching methods. Lastly, all the CWs raised the issue of the lack of career structure for their qualification which makes them feel very insecure in terms of their jobs and professional status. They also expressed frustration concerning the lack of credits for the Diploma courses as this excludes them from entering the four year degree course midstream.

DISCUSSION

1. The Nature and Prevalence of Communication Disorders

The most common disorders seen were hearing disorders. There are two aspects to consider when explaining this occurrence. The first is that indeed this does reflect a real situation where hearing disorders form a large part of the communication disorders in disadvantaged rural areas. This is borne out by research on the prevalence of hearing disorders in the developing countries which have shown high occurrences of hearing disorders (WHO, 1992; McPherson & Holborow, 1981 - 1983) although little indication is given in these studies of the occurrence of hearing disorders relative to speech and language disorders. Many of the cases of hearing disorders seen in the present study included chronic otitis media with resulting complications such as language delay as well as sensori-neural hearing losses. Brobby (1989, p. 152) has stated that "otitis media continues to be one of the most common diseases confronting the practising paediatrician and ENT surgeon in the Third World and it has important economic and health care implications". This is a real problem which requires decisions in terms of management, for example, by following the suggestions made by McPherson and Holborow (1981 - 1983) that primary and mid-level workers be taught simple but effective methods for treating chronic middle ear disorders. Impacted wax was also a common disorder diagnosed. This category was used when a dark mass of wax was observed otoscopically to be obscuring the tympanic membrane. The literature on hearing impairment in developing countries (e.g., McPherson & Holborow, 1981 - 1983) mention the occurrence of this problem but does not give indications of its prevalence. In most studies it seems, the wax is cleared out before further testing is done, thereby implying that it is not a serious disorder. This is indeed the case as the loss is usually of the order of 20 - 40dB HL (Silman & Silverman, 1991) and conductive in nature so the medical implications are not serious. However, as the prevalence was high in the school age population this disorder should not be rejected as insignificant. If a child is already at risk because of poor nutrition and poor family circumstances, and in addition has a bilateral hearing loss of 40dB HL, impacted wax becomes a disorder requiring serious attention. At present the CWs instil drops for impacted wax assuming that it will eventually be expelled naturally. However, the efficacy of this approach has not been proven, so an intervention study to assess this is required (Yach & Botha, 1986).

The second aspect to consider is that more of the CWs time was spent doing hearing screening and assessments than screening and assessments of speech and language disorders. The first reason for this could lie in the time factor in that screening for hearing disorders using an otoscopic examination together with a few relevant questions is much more cost effective in terms of the number of people screened than speech and language screening. However, it is doubtful whether this type of hearing screening can pick up any disorder other than middle and outer ear diseases. Therefore, a development of this screening should involve some form of pure tone screening to identify sensori-neural hearing losses. The use of the Liverpool screening audiometer which is a "simple, hand-held device for screening audiometry in developing countries" (McPherson & Knox, 1992) could be added to the screening protocol.

A second reason for more time being spent on hearing screening could relate to comments made by the CWs during the discussions, interviews and observations during data collection. The CWs lack confidence in their ability to assess and remediate language disorders. They do not have access to standardised assessment procedures for Tsonga children and it seems that they find it difficult to put into practice general language development principles that were taught to them in relation to English. The lack of adequate knowledge of Black South African languages on the part of the lecturers makes this

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a difficult problem to overcome. This highlights the need for research to develop these assessment procedures and to determine the extent of the speech and language disorders. The CWs all commented that there were many children with language disorders but that they were not seeing many of them. The CWs did feel confident doing articulation assessments and therapy but one queries whether this is a high priority in the disadvantaged rural areas.

Other disorders such as CP and MR are common disorders seen by the CWs as indicated by Table 1. The diagnosis of MR was made on the basis of case history factors (eg. having failed the first year of school three times), a brief assessment of speech and language development and where possible an assessment by the only psychologist working in Gazankulu. At one of the hospitals the CWs mentioned that there were over 700 names of MR children waiting for some form of intervention. This is clearly an area which has to be addressed although not by the CWs alone. An interesting disorder to consider is that of stuttering. It is a well-recognised speech pattern as indicated by the fact that many of the Black languages have a word to describe it (Turiel, 1992). However there was a very low occurrence of this disorder in the CWs case load. The explanation given by the CWs is that it is not seen as a disability in the Tsonga culture and therefore does not get referred for treatment.

2. Evaluation of the Efficacy of CWs

From the data presented in the Tables 1, 2 and 3 it is clear that there is a need for speech and hearing services in the disadvantaged rural areas. In terms of whether the CWs are being effective in their work or not, the evidence points to a positive answer. There was a notable increase in the number of cases seen from the beginning of January 1990 to July 1992. This implies a certain awareness concerning the use of speech and hearing services developing in the community generally, as well as within the health and education sectors. A further pointer to the efficacy of the CWs can be found in the observations of their work. At one of the hospitals the CWs had met with the local remedial teacher to develop a management policy for mildly MR children. As there are no facilities for these children they decided to enrol them in local schools but with prior discussions with the teachers involved regarding the problem and its classroom management. Although it is clear that the CWs are providing an effective service, there are many areas which require further development such as the assessment and management of language disordered children.

Lastly, I will address the issues raised by the CWs concerning the career structure for the Diploma and their frustrations at not being able to move onto the degree course easily. Firstly, it is clear that these people are not based in the community and I will go further to say that they seem well placed in the hospital. The reasons for this are that they are trained in a highly specific area of knowledge and skill and because of that should deal with specific problems relating to their knowledge. It does not seem feasible that a CW in speech and hearing therapy can deal effectively with community development issues such as sanitation, water, and nutritional needs, as well as specific communication disorders. Thus I propose that the CWs be viewed as mid-level workers providing a service to patients referred by primary level workers, such as the community based rehabilitation workers (CRWs) or facilitators (CRFs), being trained at Tinstwalo Hospital, Eastern Transvaal, and Alexandra Health Centre near Johannesburg (Cornielje, undated). The CWs would then provide a secondary level rehabilitation service based at a hospital or school. They would still work closely with the community and the CRWs/CRFs in terms of back and forth referrals, and education concerning communication problems. An example of this would be a child seen by the CRW for a suspected hearing loss. The CRW would refer the child to the CW for a full hearing assessment and hearing aid fitting after which the child would be followed up in the community by the CRW.

The degreed speech and hearing therapist would provide the tertiary level of service where the CWs could send patients they are unable to treat because of limited knowledge. This concept of limited knowledge relates to the idea that mid-level workers should be taught more about fewer disorders so that they become effective therapists in the disorders they see most of the time and less effective for the disorders they see infrequently. This idea is based on the assumption that there is information about which disorders are most prevalent in the various areas of South Africa. This study presents information on one disadvantaged rural area only. The data given in Table 1 suggest a reduction of training input on cleft palate and voice problems and an increased input for language disorders if one is training CWs for the Gazankulu area.

Finally, the issue of career structure and lack of mobility from the diploma to the degree course, demands brief attention. The insecurity of the CWs is an important factor to recognise. They themselves provided examples of other health care professionals who were trained and after a few years of service were told that their professional category did not have any further role. Bearing this in mind, I propose that the profession of speech and hearing therapy should take a serious look at its structure and start finding creative means to ensure good career structures and mobility from one level of worker to another. An example of how this could be done is by training all potential CWs and degree therapists on a 2 or 3 year degree or diploma which would have as a focus, the development of strong clinical skills for all the major disorder types. Any student who wished to expand her/his knowledge and develop a strong research, academic and managerial ability would go on with one or two years of study. These thoughts could be taken even further with the application of a similar concept to the movement of CRW/CRFs from a primary level of service provision to a more specific secondary level of service provision, be it in speech and hearing, occupational or physiotherapy.

CONCLUSIONS

The CWs are providing a useful and effective service in dealing with communication disorders in a disadvantaged rural area. Through their services the need for further development of these services has become apparent, a point clearly made by Miles (undated). The onus is now on the profession of speech and hearing therapy to address the issue of the development of appropriate service provision in a creative way, looking at the needs of the patient and clinician populations, and integrating this information into relevant training for all levels of service provision.

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APPENDIX A

DESCRIPTION OF THE CATEGORIES USED IN THE ANALYSIS OF THE DATA

Table 1 Categories:

Only the ambiguous categories are described.

Hearing = any type of hearing disorder, conductive or sensorineural

Hearing Recheck = recheck after diagnosis of otitis media or impacted wax to note any improvements after treatment

Speech = any articulation type of disorder although it is possible that some of the children diagnosed as having speech problems might well have additional language ones

Learning problem = when a child fails at school or is reported to be having difficulties by the teacher - a rather broad category

Other = any disorder not included in the categories

Non-verbal = when a child does not appear to verbalise at all

Learning rechecks = when child with a learning problem returns for a recheck

Table 2 and 3 Categories:

As these disorders were identified from a hearing screening and not a full speech, language and hearing screening the categories are predominantly concerned with hearing disorders. Only the ambiguous categories are described.

Otitis media = red tympanic membrane and/or runny ears

Painful ears = as reported by the patient

Otitis externa = itchy ears and/or sores on the pinna

Other = any disorder not included in the categories

For hearing test = when a hearing loss is suspected the person is referred to the hospital for a hearing test

Perforations = as observed on otoscopic examination; usually these are quite distinct for them to be observed by the CW's

Speech and language = broader than for Table 1 as here it includes any disorder eg. stuttering

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