Service Delivery in Rural, Remote and Regional Speech Pathology

Part 1: Current approaches

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This article was peer reviewed

The aim of this study was to discover the common approaches to service delivery used by speech pathologists in rural, remote and regional Australia, which factors affect the choice of approach, and the theoretical frameworks underpinning the selection and implementation of the service delivery approaches. A questionnaire containing both quantitative and qualitative questions was distributed to speech pathologists working in rural, remote and regional areas across Australia. There were 51 responses. This paper describes the profile of the clinicians who responded and the range of direct and indirect service delivery approaches currently being used. Part 2 explores the influence of context and philosophy on the selection of service delivery approaches.

Keywords:
rural, remote, regional,
service delivery

The delivery of health services in Australia may be considered with reference to geographical area. An area is considered remote where a centre has a population less than or equal to 5,000, a rural area contains an urban centre population of 5,000 to 24,999, while a regional area has an urban centre with a population greater than 25,000 but the town is not a metropolitan city (Australian Institute of Health and Welfare, 2004).

Service delivery within remote, rural and regional areas places specific demands on the speech pathology profession. The literature suggests that in very remote areas there are 0.59 speech pathologists per 10,000 head of population, while in an inner-regional area there are 1.42 per 10,000 head of population and in the major capital cities there are 1.73 speech pathologists per 10,000 head of population (National Rural Health Alliance Inc., 2004). Although some speech pathologists state that rural and remote working environments provide numerous opportunities to be creative in service development (Bell, 2003), others discuss the difficulties involved in selecting and providing services in these areas (Dearsden, 2006). Issues faced by these clinicians are well documented. These include lack of access to services for the client due to travel difficulties, low levels of awareness of health services in the community, poor recruitment and retention of health professionals, reduced access to resources, large caseloads and a lack of supervision and support (O'Callaghan, McAllister & Wilson, 2005). There is little information on how these issues directly affect the decision-making process driving choice and effectiveness of service delivery.

As the role of speech pathologists has changed over the years, so have approaches to service delivery. The traditional 1:1 therapy approach is no longer the only approach (Pertile & Page, 2003). Group therapy is becoming more common (Page, Pertile, Torresi & Hudson, 1994), and with advances in technology and a greater understanding and knowledge of communication disorders, a range of approaches to service delivery is being developed (Blosser & Kratcoski, 1997). With an increased focus on a holistic approach to therapy and an added focus on primary health care (Struber, 2004), service

delivery has also expanded to encompass community and home-based settings (Blosser & Kratcoski, 1997). At present, there is an increased obligation on speech pathologists to provide the most effective service possible, in the shortest amount of time and in the most cost-effective manner in order to achieve a greater throughput of clients (Gibbard, Coglan & MacDonald, 2004). An increased focus on evidence-based practice challenges the profession to use intervention methods which have been shown to be both effective and efficacious. This focus also affects decisions about which service delivery approach to utilise (Reilly, 2004). It is not only important that the method of intervention is evidence based but also that the method of intervention will continue to be evidence-based once a mode of service delivery has been selected.

If the optimal service is to be available to those living in remote, rural and regional Australia, there is a need to investigate the complex array of the factors surrounding service delivery in these areas. A first step in this process is to profile what goes on in these regions, and to explore the reasons for current practice. This investigation may help to inform the decision-making processes of both individual clinicians and policy-makers, and contribute to planning in the quest to develop the evidence base of the profession.

Aims of this study

The current study aimed to provide answers to the following questions:

1. What approaches to service delivery are commonly used in rural, remote and regional speech pathology in Australia?
2. What are the factors that influence selection of these approaches to service delivery?

3. What theoretical framework(s) underpin(s) selection and implementation of the service delivery approaches used in rural, remote and regional speech pathology?

This paper will discuss the demographic data collected, describe the participants, and address the first question, describing approaches to service delivery. A companion paper (Zabiela, Leitão & Williams, 2007) addresses the latter two questions.

Method

A questionnaire was developed and emailed to approximately 130 speech pathologists working in rural, remote and regional areas across Australia. Potential participants were identified through existing networks (for example, the Speech Pathology Australia Rural and Remote member network, the Speech Pathology Paediatric Indigenous Network (SPPIN)). Fifty-one responses were received. The questionnaire included both closed and open-ended questions. Demographic data were collected using closed questions and the quantitative data were entered into SPSS for analysis.

Four open questions were asked in order to obtain qualitative information regarding service delivery. Thematic analysis, using the procedure outlined by Braun and Clarke (2006), was used to analyse the data obtained from these questions. Five research assistants (final year human communication science students) were trained in the five phases of thematic analysis (Braun & Clarke, 2006) used to analyse the data. These phases are:

1. *familiarising yourself with your data.* This phase was carried out by reading through all the questionnaires to become familiar with the depth and breadth of the content.
2. *generating initial codes.* Initial codes were then generated from the data. The questionnaires were divided between 3 research assistants and the researcher for coding. The researcher examined all the codes to ensure reliability.
3. *searching for themes.* The codes were sorted into initial themes. Thematic maps were used to begin analysing the data. Overarching themes and sub-themes were found for all four qualitative data areas.
4. *reviewing themes.* The themes were reviewed, and refined into workable themes.
5. *defining and naming themes.* Once workable themes had been determined, they were defined and named. The final stage was to conduct and write a detailed analysis on each theme and report how this related to the research questions of this study. Pertinent data extracts were noted in order to demonstrate the prevalence of the theme.

Results

Demographic data

First the demographic data are presented, which includes information on the participants, their place of work, experience and assessment/treatment waiting lists.

Table 1. Location of responding participants

State	*Number of responding clinicians*
Western Australia	19
Northern Territory	2
South Australia	8
Queensland	8
New South Wales	6
Victoria	2
Tasmania	1
Unknown	5

Table 1 shows the location of the participants involved in the study. Every state was represented, with the majority of participants coming from WA.

The majority of the participants worked in the public sector, in a variety of settings including education, hospital, and community health. A small number worked in the private sector or for non-government organisations (see figure 1).

Nearly half (49%) of the responding clinicians worked in rural areas. Many participants worked in regional areas (37%), and very few clinicians worked in remote areas (10%). Some clinicians stated they were based in a rural or regional area, but provided outreach services to the more remote towns and communities (4%). Numbers of respondents by geographic area are shown in table 2.

Overall, the clinicians involved in this study had worked an average of 8.8 years in the speech pathology profession, ranging from 1 to 28 years of experience (SD 7.5). Twenty clinicians (40%) had less than 5 years experience, and only a small number (5) had more than 20 years experience (10%).

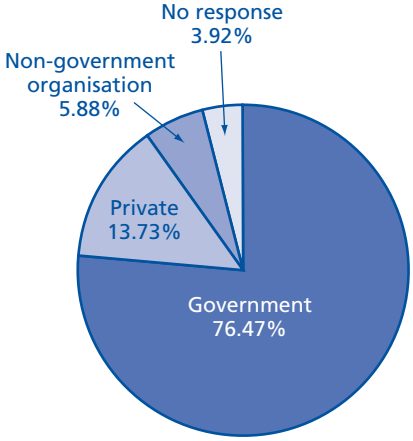

Figure 1. Practice type

Table 2. Interaction between number of years experience and geographical location

Geographical classification	*Years of experience*				
	N	Mean	Std deviation	Minimum	Maximum
Rural	25	8.2	7.3	0.5	28
Remote	5	5.5	4.5	1.4	13
Regional	19	10.6	8.4	0.8	25
Other	2	8.8	10.3	1.5	16
Total	51	8.8	7.5	0.5	28

The literature suggests that less experienced members of most allied health disciplines work in the more remote areas (National Rural Health Alliance Inc., 2004), and this was the case in this study. Clinicians working in remote areas had the lowest average number of years of experience. Years of experience for each type of area are shown in table 2.

Approximately half (26) of the responding clinicians had previously worked as a speech pathologist in a rural, remote or regional area, and 27 of the 51 participants grew up in a rural, remote or regional area. Seventeen respondents grew up in a rural, remote or regional area, and also had previous experience in working in this setting. In addition, those who grew up in rural, remote or regional areas were more likely to have had previous experience in these areas than those who did not (17:9), and were less likely to be in their first rural, remote or regional placement (10:15).

The number of clients on waiting lists for both assessment and treatment appeared much smaller than might be expected. Only two clinicians had more than 100 clients on their assessment waiting list. Further, the majority of participants (38) had fewer than 50 clients on their assessment waiting list, with 12 clinicians reporting they had no waiting list at all. With regards to the waiting list for intervention, only five clinicians had more than 50 clients on their waiting list. The number of clients on waiting lists is shown in table 3.

Service delivery approaches

In the questionnaire, participants were asked to describe the type of service delivery approaches they used, and how these were implemented. Thematic analysis was used to analyse these responses, and indicated the presence of two main themes: direct services and indirect services.

Direct services encompass those service delivery approaches where a speech pathologist has direct contact with the client. The direct contact may have included a number of other clients being present (such as in group therapy) or where

Table 3. Number of clients on treatment and assessment waiting lists by frequency of response

	Number of clients on waiting list (frequency of response)						
Waiting list type	0	1–10	11–20	21–30	31–40	41–50	51+
Assessment	12	11	8	2	4	3	4
Treatment	19	6	3	0	2	2	1

Table 4. Direct speech pathology services

Subtheme	*Number of responses*	*Description and example of subtheme*
Individual therapy	34	Individual or one-to-one therapy was in some cases only offered in blocks; however, some clinicians were not restricted to this: "*I see clients as often and for as long for they need/want. Most come fortnightly for half hour sessions*".
Group therapy	16	Group therapy was used in both the adult and paediatric population Some participants reported barriers to the use of group therapy approaches, e.g., "*Groups are used sparingly because of the lack of numbers of similar clients in the same town, but attempted this where possible*". Other participants used group therapy often, such as "*for school age clients at regularly visited schools*".
Multidisciplinary	16	A multidisciplinary approach involving other allied health members, or other professionals, was reported by sixteen participants. One clinician stated that "*we maximize efficiency through multidisciplinary teams*" Another described their service thus: "*We service 0–4 yrs by multidisciplinary team (i.e., physio, OT) most therapy sessions are joint using a range of assessment and therapy tools and resources*".
Home visits	11	One speech pathologist stated "*I offer home visits to clients when therapy involves environmental modification or when the client does not respond well in a clinic situation*". Others used home visits while on outreach trips, or where "*families have transport difficulties and it is more appropriate for the clinician to visit them at home*".
Outreach therapy	8	This could involve regular outreach visits, a one-off visit during the year or upon request. One speech pathologist described "*Each speechie [speech pathologist] had a rural caseload where we had to travel [plane and car] to remote areas of the health service area*".
Telehealth	8	Four participants used videoconferencing with their client to provide services or for mentoring purposes during the session. "*Occasionally videoconference [is] utilized to link with other more experienced speech pathologists for 1 to 1 sessions*". Three participants used the telephone (such as with phone reviews) as a form of service delivery, and one other used the internet (including web cameras) to service a client. Telehealth was used by rural, remote and regional participants.
School based	6	One participant stated that she provided a school-based service because "*sometimes families won't attend appointments at the clinic and it is easier to access the child whilst they are at school*".

Table 5. Indirect speech pathology services

Subtheme	*Number of responses*	*Description and example of subtheme*
Home programs and caregiver training	28	These included a home program-review cycle, which was mainly used for outlying clients where school visits happen once a school term or parent-training programs such as the Hanen Program (Baxendale & Hesketh, 2003).
School based	27	Services were provided by a Therapy Assistant or Educational Assistant, or a program was written by the speech pathologist and carried out by the teacher at school either with the whole class, a small group or individual children. Professional Development sessions were provided for teachers and Education Assistants.
Primary health	24	These services involved focusing on keeping people healthy, through community education (Rogers & Veal, 2000), and early detection of speech and language disorders.
Consultation	16	This involved consultation to family and carers, schools, The Disability Service Commission, and special needs units at schools. The participants often gave programs and advice to the people working in these disciplines. "*This service aims to maximize the number of children supported by skilling up the people in sites*".
Therapy assistants	11	Therapy assistants are trained by the speech pathologist to deliver therapy to a client. One participant commented "*we delegate clients to TAs (Therapy Assistants). We have allocation criteria for clients suitable for Therapy Assistant programs… the criteria include complexity of client, treatment goals, family commitment etc.*". Some participants also used Telehealth as a way of training and observing TAs in a session.

more than one clinician was involved (such as with therapy involving a multidisciplinary team). There were 100 cases of direct services mentioned in the questionnaires. Sub-themes of the direct services theme are summarised in table 4. The main services were for individual therapy, with a spread among a range of other options.

Indirect services include services where a speech pathologist does not have direct contact with a client, but instead provides a service through education of another person, or by promoting awareness or early detection of speech, swallowing and language problems. There were 110 cases of indirect services as a form of service delivery reported in the questionnaires. The sub-themes are described in table 5.

Discussion

For the most part, the demographic data were consistent with the literature. Nearly half of the participants worked in rural areas, some in regional areas, and very few in remote areas. Most worked in the public sector, in education, hospital, or community health based settings, as predicted by the National Rural Health Alliance Inc. (2004). Slightly more than half of the responding clinicians had grown up in, or worked as a speech pathologist in rural, remote or regional areas previously. This is consistent with the literature which suggests that a rural background almost triples the odds of choosing rural employment (Playford, Larson, & Wheatland, 2006).

There were two findings which differed from previously published information. The first difference related to staffing. In contrast to the suggestion that rural/remote areas are typically staffed by inexperienced clinicians (National Rural Health Alliance Inc., 2004) the clinicians involved in this study had worked an average of 8.8 years in the speech pathology profession. There were, however, differences between the regions. Those working in remote areas had the lowest average number of years of experience. The second difference was that the clinicians in this study reported shorter waiting lists for assessment/treatment than predicted (Bell, 2003).

In terms of service delivery, there was an equal split between direct and indirect services. Some clinicians reported that they would like to do more one-to-one clinical work and less non-client work, while other clinicians wanted to have more of a focus on primary health care and less one-to-one therapy. The most common service delivery approaches used were individual therapy, parent/carer training and home programs. It is interesting to note that despite the availability of improved technology and new approaches, these traditional methods remain the most common, and only limited cases of telehealth were used. This may, in part, be due to the lack of training in the use of telehealth, coupled with the lack of evidence for the effectiveness of service delivery using this method.

Primary health care approaches emerged as a common form of indirect service delivery, a finding which may reflect an increased emphasis from many health departments. These approaches fell into three categories: universal, selective or indicated prevention (Marshall & Craft, 2000).

Universal prevention involves interventions provided for the general population or a whole population group that has not been identified on the basis of individual risk for a specified health problem (Marshall & Craft, 2000). Some universal prevention strategies reported by the clinicians included health promotion in the area of speech pathology at community events and in community settings. Selective prevention strategies are those where interventions target individuals or a subgroup of the population whose risk of developing a certain health problem is significantly higher than average (Marshall & Craft, 2000). Some examples reported by the participants included group parent education sessions to new mothers, parents of children in playgroups or kindergartens, and stroke awareness programs. Indicated prevention involves interventions that are targeted at high-risk individuals with minimal but detectable signs or symptoms foreshadowing the specified health condition (Marshall & Craft, 2000). One indicated prevention strategy used by the participants was the Hanen program (Baxendale & Hesketh, 2003).

Another form of indirect service reported by the responding clinicians was the use of therapy assistants, a practice which is becoming more common in rural and remote areas (Lin & Goodale, 2006). It allows for a systematic approach to service delivery, which can provide the speech pathologist with more leadership and administrative roles in order to manage the caseload (Goldberg, Williams & Paul-Brown, 2002). There were relatively few reports (only 11) of therapy assistants being used; however, many clinicians suggested that they would prefer to have more therapy assistants available to them.

In summary, the questionnaire data provided a demographic profile of the participating clinicians and an overview of the typical models of service delivery selected by clinicians working in rural, remote and regional settings. Delivery was split almost equally between direct and indirect services and generally included traditional approaches, such as individual, home programs and group therapy. The use of indirect approaches based on a primary health model was observed.

Thematic analysis was also used to explore the factors that underpinned the selection of the approaches used by the clinicians to deliver services. These findings are reported in part 2 of the paper in this issue.

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Cheraine Zabiela completed her final year at Curtin University in 2006 and this paper is based on her honours project. She is passionate about rural issues and was the recipient of the WACHS/CUCHR award for the student with the most outstanding record in a rural placement. **Cori Williams** and **Suze Leitão**, both lecturers at Curtin University, had the pleasure of taking part in designing this project, supervising the research and working with Cheraine to write it up.

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Service Delivery in Rural, Remote and Regional Speech Pathology

Part 2: The influence of context and philosophy

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This article was peer reviewed

This paper reports aspects of a larger study which investigated approaches to service delivery used by speech pathologists in rural, remote and regional Australia, factors affecting the choice of approach, and the frameworks underpinning the selection and implementation of the service delivery approaches. A questionnaire containing both quantitative and qualitative questions was distributed to speech pathologists working in rural, remote and regional areas across Australia. There were 51 responses. The results showed a diverse range of service delivery approaches primarily driven by contextual influences. The influence of a clinician's underlying philosophical orientation was generally implicit rather than explicit. In many cases, service delivery approaches appeared to be driven by the workplace or health department guidelines, rather than the clinician's own underlying theoretical framework.

Keywords:
context,
philosophy,
rural, remote, regional,
service delivery

Aims of this study

The current study forms part of a larger project which aimed to provide answers to the following questions:

1. What approaches to service delivery are commonly used in rural, remote and regional speech pathology in Australia?
2. What are the factors that influence selection of these approaches to service delivery?
3. What theoretical framework(s) underpin(s) selection and implementation of the service delivery approaches used in rural, remote and regional speech pathology?

A companion paper (Zabiela, Williams & Leitão, 2007) has discussed the demographic data and described the approaches to service delivery that emerged in the data. This paper will address the latter two questions, discuss the qualitative data in detail and reflect on the influence of context and philosophical underpinnings.

Background

Current approaches to service delivery identified in rural, remote and regional settings are described in the companion paper (Zabiela, Williams & Leitão, 2007). These include one-to-one therapy, group therapy, family-centred practice and parent-based intervention (with the use of home programs), therapy assistants, telehealth, school-based programs, and computer-based programs.

Service delivery within rural, remote and regional areas places many demands on the speech pathology profession. Some speech pathologists find these work environments provide a range of opportunities to be creative in service development (Bell, 2003), while others discuss the difficulties involved in selecting and providing services (Dearsden, 2006). Contextual factors such as distance, cost of services, recruitment and retention issues are highlighted by clinicians working in rural, remote or regional areas and may impact on service delivery approach.

In addition, the clinical practice of clinicians will be driven by a certain philosophy toward intervention which may influence the selection and implementation of a therapy approach. Service delivery approaches are considered to reflect to a greater or lesser extent an impairment-based approach or a social approach (Duchan, 2001).

This study sought to explore factors underlying service delivery approaches used in rural, remote and regional settings through the use of thematic analysis (Braun & Clark, 2006).

Method

A questionnaire was developed and emailed to approximately 130 speech pathologists working in rural, remote and regional areas across Australia. There were 51 responses. The questionnaire consisted of both closed and open-ended questions. The open-ended questions were designed to investigate the factors which influence decisions made with regard to service delivery. Thematic analysis, following the procedure outlined by Braun and Clarke (2006), was used to interpret the results obtained from the qualitative questions in the questionnaire. Details of the methodology are provided in Zabiela, Williams and Leitão (2007). This paper reports responses to questions asking about factors influencing clinicians' decision-making when selecting treatment approaches. Both contextual factors and philosophical frameworks emerged in the thematic analysis as playing a part in this decision-making.

Results

Contextual factors

A large number or responses related to contextual factors. Four main themes (client, community, workplace and clinician) were evident in participant responses. Each theme encompassed a number of subthemes. These are summarised in table 1.

Philosophical frameworks

The qualitative questions sought to gather information about the philosophical/theoretical approaches which framed a clinician's approach. Most participants did not directly state the underlying rationale which drove their approach to service delivery; however, this information was inferred from their answers. Four major approaches were identified: impairment based; biopsychosocial or social based; primary health care and literature based approaches. These are summarised in table 2.

Discussion

Both contextual factors and philosophical frameworks were identified within the data, with contextual factors identified

Table 1. Contextual factors

Theme	*Subtheme*	*Number of responses*	*Description*
Client		*48*	
	Motivation/support	15	The level of motivation of a client or their caregiver, and the level of support available to the client
	Severity/type of disorder	12	Service delivery approach selected on the basis of the severity or impact of the client's disorder
	Transport/accessibility	8	Transport issues changed the service delivery
	Client interests/needs	6	Client interests or needs are taken into account when choosing a service delivery approach
	Client progress/ response to treatment	5	Approach is changed based on the amount of progress made by the client
	Finances	2	Service delivery is modified due to the client's financial situation
Community		*31*	
	Number/type of clients	9	Service model is altered depending on the number of clients at an outreach town or school
	Availability of other services	7	Approach to service delivery chosen on the basis of the availability of other services available in the community
	Distance	4	Service delivery approach selected on the basis of distance of the community from the service provider
	Setting	4	Service delivery approaches changed due to the availability of a location from which to work
	Teacher/community support	4	Service delivery approach chosen on the basis of the level of support available in the town, community or school
	Community needs	3	Service delivery approach selected according to the (unspecified) needs of the community at the time
Workplace		*67*	
	Caseload	26	The size, type of clients and prioritisation of clients on the caseload
	Service provider guidelines	14	Approach to service delivery dependent on guidelines used in their clinic or department
	Resources	14	Services influenced by resources available
	Staff	13	Service delivery affected by staffing levels and availability of therapy assistants
Clinician		*20*	
	Time	14	Service decisions influenced by the amount of time available to see clients or carry out home/school visits
	Travel	6	Service delivery approach changed dependent on clinician's ability to travel to a town, or willingness to stay overnight at an outreach location

more frequently. Participants described the influence of a number of different contextual factors on their decision-making for service delivery. Some of these could be expected to influence decision making in similar ways regardless of location, others may have a different effect in different areas, while others seem likely to be specific to rural, remote or regional locations.

Contextual factors

Those contextual factors which seem likely to have a similar effect regardless of location include client factors such as severity and type of disorder, and client's interests, needs and progress; workplace factors such as service provider guidelines and caseload; and the clinician factor, time. One respondent indicated that "high needs cases may get more intensive service as appropriate", another stated that the service delivery may change if "The client is not progressing or current service delivery option does not fit the client". The amount of time available to see clients or to carry out visits was also cited as a factor which affected service delivery.

Some factors may exist in all locations, but the response or effect may differ according to area. Client and workplace factors for which this may be the case were identified. Client/caregiver motivation and support may be an issue regardless of location. In commenting on this factor, however, one respondent noted that "Some children are seen at school

Table 2. Philosophical frameworks

Framework	*Number of responses*	*Description*
Biopsychosocial/social	42	Biological, psychological, and sociological factors are all seen as important, and psychoscial factors are considered to have a significant effect on the outcomes of intervention
Primary health care	13	Health care which focuses on areas of greatest need, and promotes self reliance in individuals and communities. Frequently involves inter-sector collaboration
Literature based	16	Service delivery approaches based on documented approaches found in the literature
Impairment	9	Work took place primarily within a medical model, assessing and treating a client based around his/her physical impairment

by a therapy assistant. This is mainly used for children whose parents are unable or unwilling to bring their child to the health centre." This method of dealing with the issue may be less available in urban areas, due to less frequent use of therapy assistants in speech pathology contexts. The literature reports primarily on the use of therapy assistants in rural/remote areas (see, for example, Lin, Birch and Goodale, 2005).

Transport/accessibility may be an issue for some families in metropolitan areas; however, the distances involved and impact on families are likely to be far greater in rural, remote and regional areas. One respondent reported, "For the more severe cases I ask that they drive the long distance into the bigger centre to see us". The nature of service coverage in non-metropolitan areas may mean that these distances are long indeed. Availability of resources is an issue common to all settings. One respondent, however, commented that she would change her approach depending on the availability of culturally appropriate resources. It is not clear whether this is of similar concern in metropolitan clinics. Staffing levels are another factor which can be expected to impact regardless of location, but can have different effects. Vacancy rates in rural remote and regional areas are higher than those in metropolitan areas, and vacancies often go unfilled for long periods of time (Struber, 2004), thus exacerbating the effects.

Those factors which may be considered to be specific to rural, remote and regional areas are found primarily in those identified in the broad subtheme of community. Issues to do with small population size are specific to non-metropolitan areas, and have a marked effect on service delivery. For example, one participant stated, "Small population size means availability of client types in one town for groups [is] more difficult and therefore 1 to 1 [is] more appropriate". The need to service outlying communities, and the distance of these from the major centre, also impacts on service delivery. One speech pathologist stated, "distant sites have fewer visits and this naturally influences the type of service provided". Distance and population size interact – more distant communities are likely to be very small, which may result in a reduction in services: "We don't travel to a town unless there are enough clients to make a day of it". The availability of other services (services which we may assume are readily available in metropolitan areas) may also influence the choice of service delivery in rural, remote and regional areas. For example, one participant stated that the service she supplied to schools was different to that provided in the metropolitan area because of a "lack of alternative facilities such as specialised language classes, so all children are in regular classrooms". Participants reported that their service delivery approaches were also affected by the level of support that was available in a town, community or school, and by the availability of a suitable location from which to work. It may be that, in some instances, clinicians working in rural, remote and regional areas have greater flexibility to adapt their service to the needs of their clients. For example, one participant reported, "At present I am doing group programs in kindys as we have [a] history of clients not attending groups run at [the] health centre". One clinician factor which seems likely to be particular to rural, remote and regional areas is that of travel. Participants reported that their service delivery approach changed depending on the clinician's ability to travel to a town, or willingness to stay in an outreach town overnight.

Philosophical factors

There was little overt mention of philosophical frames of reference within the responses. It is difficult to infer whether this was due to the questions asked in the questionnaire, or whether the clinicians generally did not consider an underlying philosophical framework when deciding upon service delivery approaches. The questions asked were open-ended in order to avoid biasing the results, and to allow themes to emerge. It may be that a different picture would have emerged if a direct question regarding philosophical frameworks had been asked. Nevertheless, it was possible to infer the respondents' reasoning, and themes emerged from the answers provided in the questionnaires.

Within the responses, three main philosophical frameworks were evident: impairment based; biopsychosocial or social based; and a primary health care approach. In addition, some participants discussed literature based approaches which they may have discovered or sought out to support their approach.

The largest number of responses indicated that clinicians were working within biopsychosocial (World Health Organization, 2001) or socially based frameworks. It was difficult to adequately distinguish between the two due to the nature of the responses. It seemed that some participants may have worked within a social model, but also used aspects of a biopsychosocial model. Many participants also mentioned working in a family-centred practice approach, which encompasses aspects of both. This broad type of framework was indicated by statements such as "I suppose my approach to service delivery is an holistic approach. Treating the person as a whole person, and trying to identify the most important issue for them".

Another identified theme was a primary health care approach. Thirteen participants based their service delivery upon this framework. One participant explained: "we endeavour to incorporate the principle of family centred practice and primary health care in our work by empowering parents through information, education and by allowing parents to be the therapists with support, rather than a traditional 1:1 therapy format". Another participant stated that she was influenced by "evidence that primary health programs are effective in reducing future caseload sizes".

The theme labelled here "literature-based" underpins service delivery in a slightly different way. This was identified

when participants reported that they based their service delivery on approaches documented in the literature. Four participants stated that they used the Maroondah Approach to Communication Services (MACS) "[I] generally review on 5 week cycles as per modified Maroondah Approach to Communication services (MACS) approach". Another stated that "The MACS system enables me to manage a caseload effectively with 18–24 new referrals each month". Other research mentioned by participants as a basis for their service delivery approach included the hub and spoke outreach model (Battye & McTaggart, 2003), or an indigenous health framework (the framework was not specified). Another participant stated that she generally changes her approach to service delivery when "new evidence for effective practice comes to light". Although it is not clear that the level of evidence supporting these approaches was a consideration, this tendency may reflect use of an evidence-based approach rather than an underlying philosophical or theoretical orientation. In the current climate, with the emphasis on evidenced-based practice, it is perhaps surprising that this theme did not emerge more strongly from the data.

The philosophical framework which was least commonly mentioned was the impairment-based approach. This was identified when a clinician indicated that she/he worked primarily in a medical model, assessing and treating a client based around their physical impairment. One example where this was directly stated by a participant is "we provide an acute service which often fits into the medical model". An impairment-based approach occurred mainly with clinicians working in hospital settings with dysphagia clients.

Summary

If the pattern of responses was indeed reflective of the decision-making processes of clinicians, then it could be suggested that clinicians working in rural, remote and regional areas are overwhelmingly faced with contextual factors, with little time or resources to focus on the underlying philosophy of the service delivery approach. It is possible that, at times, they may even need to work in ways which go against their beliefs about service delivery. This may have implications for job satisfaction of clinicians, a suggestion which is supported by a response from one participant who reported that she was running in crisis mode (due to a number of contextual issues, including lack of staff and resources) and could not focus on delivering the best services to her clients. Ultimately, a tension between contextual factors and an underlying philosophical framework may contribute to the well-documented difficulty (O'Callaghan, McAllister & Wilson, 2005, Struber 2004) in retaining staff in rural, remote and regional areas.

Conclusions

Clinicians working in rural, remote and regional areas use a diverse range of service delivery approaches. Context provided the main driving force influencing the type of approaches used, and service delivery approaches appeared to be driven by the workplace or health department guidelines, rather than the clinician's own underlying theoretical framework. The influence of a clinicians' underlying philosophical orientation was generally implicit rather than explicit.

These findings have implications at two levels – that of the clinician, and that of the system. Clinicians working in a rural, remote or regional area may find it useful to reflect on how their underlying frameworks fit with, or are in conflict with, the workplace philosophy and contextual factors they face. It may be that unrecognised conflict between philosophical orientation and context contributes to retention issues in these geographical areas. At the system level, knowledge of the effect of contextual issues may be useful in planning more efficient services, and in boosting retention. To further boost retention, future research could explore the factors which keep clinicians working in rural, remote and regional areas for longer periods of time.

It has been suggested that some of the contextual issues identified in this paper are particular to rural, remote and regional areas, but that some may be relevant to the profession more generally. Further research exploring the same issues for clinicians working in metropolitan settings will help to clarify these matters.

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Cheraine Zabiela completed her final year at Curtin University in 2006 and this paper is based on her honours project. She is passionate about rural issues and was the recipient of the WACHS/CUCHR award for the student with the most outstanding record in a rural placement. **Cori Williams** and **Suze Leitão**, both lecturers at Curtin University, had the pleasure of taking part in designing this project, supervising the research and working with Cheraine to write it up.

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