Multidisciplinary therapy services for children with feeding disorders in country South Australia

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Introduction

Poor recruitment and retention of allied health professionals (AHPs) is a significant issue in rural Australia[1], and can limit access to specialist services and experienced staff. Country Health SA Local Health Network (CHSA LHN) AHPs identified this as a potential factor impacting on services to children with complex feeding issues. CHSA LHN provides public health services across 99.8% of the area of South Australia. Most services are provided in geographically remote areas, with only 2.1% of this area classified as 'inner regional' and 0.1% as 'major cities'[2]. AHPs make up a significant portion of the workforce of CHSA LHN. AHPs assess, treat and coordinate the care of clients in the community across the full age range. Within CHSA LHN, allied health professions within paediatrics most often include speech pathology (SP), occupational therapy (OT), physiotherapy (PT) and dietetics (DT), with some sites also having access to social workers, podiatry and visiting paediatricians.

CHSA LHN AHPs working in the area of paediatrics have been reporting increasing numbers of children presenting with feeding issues. Research suggests the prevalence of feeding disorders is as high as 25% in all children, and up to 80% in children with a developmental disability[3]. This is a client group at high clinical risk through potential for malnutrition, growth retardation, increased susceptibility to illness, cognitive impairment and emotional dysfunction, and even death due to choking or aspiration[3]. It is also a difficult area due to the complexities in assessment and diagnosis of feeding issues, and the need to deal with the high anxiety and social issues that families often present with.

Competence of CHSA LHN clinicians in the area of paediatric feeding is unknown, but informal reports indicate a practice gap. This may be due to the fact that while these clients require complex and often time intensive intervention when they do present, there may be a significant time gap between referrals for similar issues. The high staff turnover in some parts of CHSA LHN also means that new clinicians need training and resources to work effectively with these complex children. The 'specialist-generalist' nature of rural health services means that clinicians are required to up-skill in a range of clinical areas[1,4] including adult and other paediatric clinical areas. Arvedson[5] states that for children with feeding issues "improper diagnosis and management decisions increase risk for poor nutrition and health outcomes". It is therefore important that a focus is given to this area of practice to ensure that evidence based and appropriate services are being provided.

This project aimed to map the patterns of service delivery and quality of therapy services provided to children with feeding issues in country South Australia. We will draw conclusions around the strengths and gaps in current services, and make recommendations around training needs and service models for clinicians working with this group.

Method

A dedicated workgroup was formed to further investigate paediatric-feeding services, first meeting in August 2012. Members consisted of the CHSA LHN Advanced Clinical Lead Speech Pathologist, a Clinical Senior Speech Pathologist, Clinical Senior Dietician and Clinical Senior Occupational Therapist. The working group determined that they would aim to improve services to children with feeding problems by making recommendations around training needs and service models for CHSA LHN Allied Health staff.

The working group decided to survey AHPs across CHSA LHN to determine current paediatric feeding service trends. The survey was specifically developed with SP, OT and DT staff in mind, with these

being the three disciplines most impacted by paediatric feeding clients. The working group also targeted professionals within physiotherapy and social work who work predominantly within the paediatric field.

This survey aimed to collect quantitative and qualitative data on a range of factors relating to services provided to paediatric feeding clients in country South Australia. It consisted of a series of 19 questions. The first questions aimed to gather demographic information such as discipline, location of employment and years of experience. Information was then gathered around proportion of time spent in paediatrics, frequency of working with specific diagnostic groups regarding paediatric feeding, and whether staff work in multidisciplinary teams.

The next series of questions gathered information about frequency of services, clinician confidence, prioritisation, and types of services provided for different types of feeding issues. For the purpose of this study, feeding issues were divided into four groups:

- Fussy eating—general "fussy" behaviour at mealtimes with preferences for certain foods or textures, but still including food or alternatives from each food group and growing at an acceptable rate.
- Feeding disorders—feeding issues involving significant restriction of the amount or variety taken, but not requiring alternative feeding. Issues may be contributed by difficulty managing age-appropriate textures, risk of aspiration or choking, significant food refusal, or poor hand skills. These difficulties often relate to a particular disorder.
- Enteral feeding—children who are currently or have recently been fed via tube. These clients may require help to learn to eat or drink orally to meet either part or all of their nutrition needs.
- Infants feeding disorders—babies aged 6 months or younger requiring input for feeding with liquids. This may include premature infants, infants with serious respiratory or cardiac conditions, gastrointestinal issues or breast-feeding difficulties.

The final series of questions sought information about the use of outcome measures, training and development, strategies for improving confidence and competence, and factors that influence the approach taken with paediatric feeding clients. Staff were also able to add any further comments.

A final draft of the survey was presented to a CHSA LHN employed OT, SP and DT, for review to provide feedback. All feedback was discussed by the working party and a final edition of the survey was completed. By December 2012, after approval from the CHSA LHN Allied Health Advisor, the project survey was uploaded onto Survey Monkey.

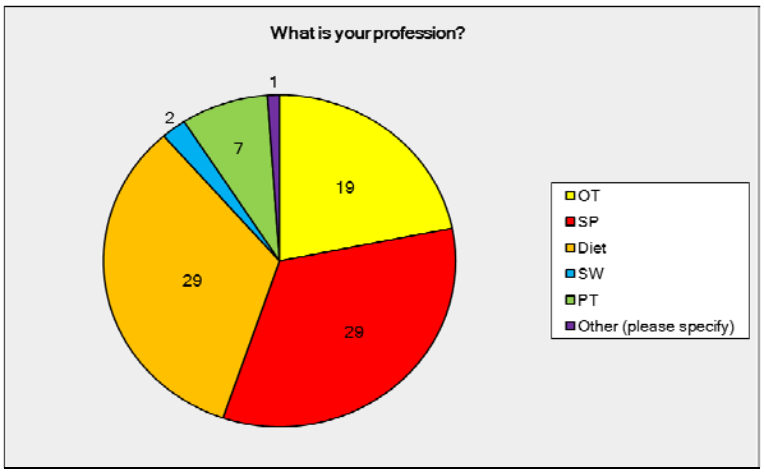
The Survey Monkey link was emailed out to distribution lists of CHSA LHN SP, DT and OTs. Advanced Clinical Leads for Social Work and Physiotherapy also provided names of staff currently working in the field of paediatrics, and these people were also emailed a link to the Survey Monkey questionnaire. Participants were sent a reminder email in January, and the survey closed at the end of January 2013. Respondents were assured that information provided via the survey would remain confidential and be de-identified.

The working party met in February 2013, at which time the results were reviewed and a decision was made to cleanse some of the data prior to analysis. Responses received from two individuals who were not working in a relevant clinical role were removed from the overall data so as not to influence the analysis of the gathered information.

Results and discussion

At the time of the study, CHSA LHN was divided up into 10 health regions. Responses were received from staff in each health region. A total of 87 Allied Health staff responded to the survey. Figure 1 summarises the number of responses received per discipline.

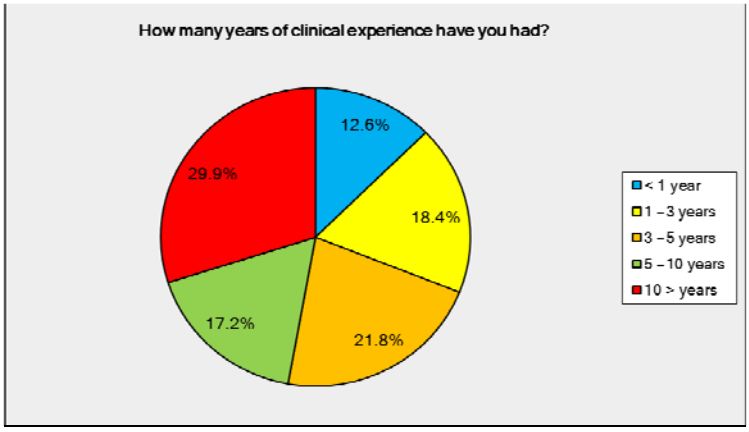
Figure 1 **Proportion of respondents from each allied health discipline**



When analysing this more closely, the percentage response rate (of AHPs working in a paediatric field at the time) for the three main disciplines was 82.9% for Speech Pathology, 90.6 % for Dietetics and 67.8% for Occupational Therapy.

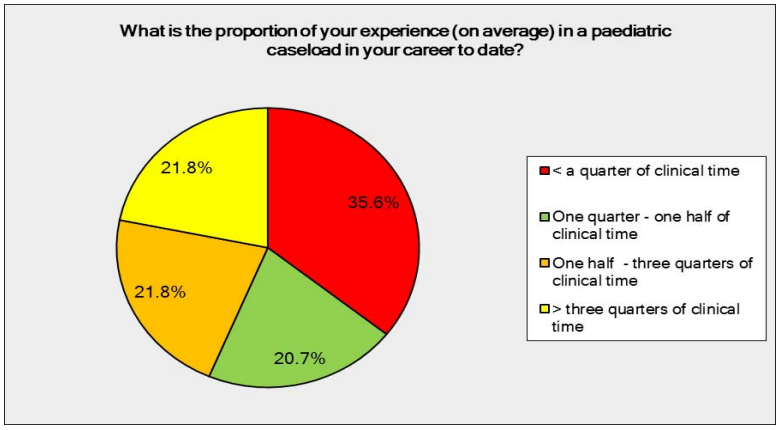
When reviewing respondents' years of clinical experience as outlined in Figure 2, it is interesting to note that the highest proportion of responses received were from staff with more than ten years experience. When compared across the three main professions of SP, OT and DT, this trend remained relatively consistent. This highlights a strong presence of experienced AHPs currently working in the paediatric field across CHSA LHN.

Figure 2 **Years of clinical experience of respondents**



As described in Figure 3, the majority of respondents have spent at least a quarter of their clinical time in a paediatric caseload in their career to date. This is consistent with the pattern of many AHPs in CHSA LHN working across both paediatric and adult caseloads.

Figure 3 Proportion of experience in a paediatric caseload in career to date



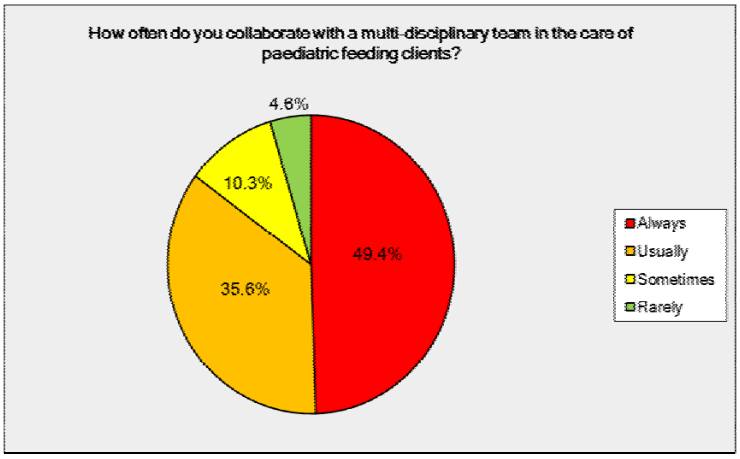
The patterns of service delivery

Paediatric feeding issues can present with varying features, severity and complexity. For the purpose of our survey we sought to find out which types of feeding issues presented most often. An analysis of results revealed that AHPs see fussy eaters most frequently, with 81.4% reported dealing with these clients at least every few months. Children with feeding disorders, enteral feeding and infant feeding issues (often regarded as being more complex) were found to be seen less often that fussy eaters, but a high proportion of AHPs still see these clients at least once a year: 81.5% of AHPs saw feeding disorder clients, 69.8% of clinicians saw infant feeding clients and 59.3% of clinicians saw enteral feeding clients at least once a year. This demonstrates that with the majority of AHPs seeing a range of paediatric feeding clinical presentations at least annually, adequate skills and resources need to be available in order to provide a quality service to these children.

When referrals are received, clients are allocated a priority rating based on the client's level of risk, which then determines the waiting time. Priorities are generally allocated by individual AHPs. Our survey asked questions around the priority that would be given to different types of feeding clients. It found that a lower priority was consistently given to fussy eating referrals by all professions, with 58.2% indicating that these clients would be allocated either a priority 3 or 4. The priority given was higher for the more complex issues of feeding disorders, enteral feeding and infant feeding disorders. By discipline, these clients would consistently be allocated a priority 1 or 2 by SP and DTs. OTs were more variable with the priority allocation for these clients, which is most likely due to the fact that OTs were also found to work with these clients less frequently. These results suggest that while priority allocation is generally consistent across disciplines and appears appropriate in giving higher priority to more complex and higher risk presentations, some more direction around prioritisation of these client groups would be beneficial.

The literature strongly supports an inter-disciplinary team approach to assessing and treating children with feeding issues ([1,3-4,6]). Our study found that in CHSA LHN the service provided to paediatric feeding clients is most often done so in a multi-disciplinary team, with 85% of AHPs indicating this was 'always' or 'usually' the case, as demonstrated in Figure 4. This is consistent with the strong multi-disciplinary culture that exists within allied health in CHSA LHN. Dietitians did tend to work outside of a multi-disciplinary team slightly more often; this may be due to the tendency for them to receive referrals for less complex fussy eating that does not require team input. The fact that services to feeding clients are usually provided in a team environment suggests that AHPs in CHSA LHN are able to provide a better quality service to clients, consistent with evidence supporting a team approach.

Figure 4 **Frequency of collaboration with a multi-disciplinary team in the care of paediatric feeding clients**

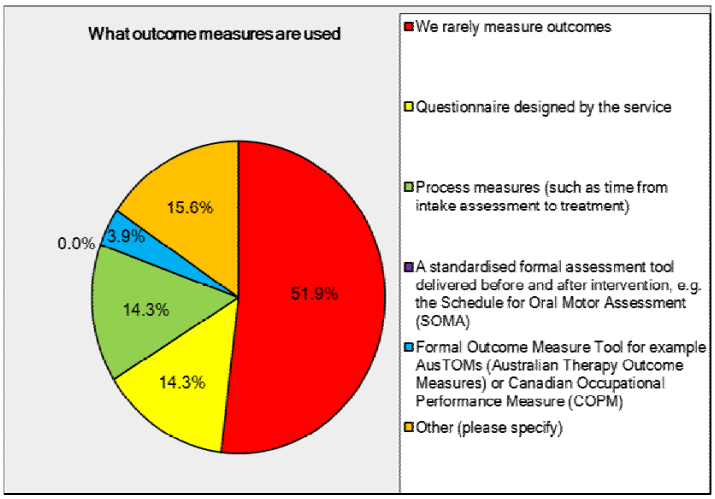


With CHSA LHN covering such a large area made up of many sites, it can be difficult to ensure that consistent services are provided to clients in different areas. We asked about the services that were provided to different types of clients. Results suggest that the more complex clients with feeding disorders, enteral feeding or infant feeding issues are usually seen in individual appointments /therapy, with over three quarters of AHPs indicating this was 'always' or 'usually' the case. This is consistent with the fact that these clients are difficult to group together to provide more generalised input; advice is often very individual dependent on a clients history and presentation. For fussy eating clients, an average of 80% of SP, OT and DT still indicated that they would 'always' or 'usually' see these clients for an individual appointment / therapy. This is surprising given that these clients generally present in higher numbers, can share similar traits and be provided with similar types of advice, making them candidates for group styles of intervention. They also currently wait longer for services due to receiving a lower clinical priority. What is not clear from this survey is whether these individual appointments/therapy are conducted in a multi-disciplinary format. Further investigation into this issue, and consideration of evidence based groups, could help provide quality services in shorter time frames to these clients.

Quality of therapy services

There is increasing recognition of the importance of quality in health care services, which can be achieved through evaluation of service outcomes. Our survey (as demonstrated in Figure 5) found that 51.9% of AHPs rarely measure outcomes for paediatric feeding clients (other than growth and intake records). This was consistent across all disciplines. These results highlight poor uptake and use of evaluation and outcome measures within CHSA LHN AHPs working with paediatric feeding clients.

Figure 5 Use of outcome measures in evaluating paediatric feeding clients



Clinician confidence and competence are factors that contribute to quality of service provision. External training and development opportunities contribute to staff knowledge and skill levels, and hence staff confidence and competence. In our survey, clinicians were asked about training completed in the area of paediatric feeding in the last five years. 32.2% of respondents stated that they had no training in the last five years or did not respond (suggesting that they have not completed any recent training). Of those who had attended training, there was a wide variety of workshops attended (16 specific courses as well as many respondents attending other training at discipline-specific conferences). While these results do indicate that within CHSA LHN clinicians have developed their skills and knowledge from a wide variety of sources, they also suggest that there is a lack of consistency in knowledge and the training being accessed. As a result, services provided are likely to vary greatly between clinicians and sites.

Low confidence levels may suggest that clinicians do not have the knowledge, experience or skill levels to provide a high quality service. Survey respondents were asked to rate their confidence in working with the four defined paediatric feeding areas. Confidence was rated as "very", "moderately", "a little" or "not at all". For the feeding issues considered more complex, confidence levels were low. Most clinicians described themselves as "not at all" or "a little" confident with Feeding Disorders (62.8%), Enteral Feeding (69.8%) and Infant Feeding (66.1%). Confidence levels were higher for Fussy Eaters with 75.6% of respondents describing themselves as "moderately" or "very" confident in dealing with these clients. These results correlate with the frequency of clinicians working with each client group, with 81.4% of respondents working with fussy eaters at least every few months, compared to less often in the other clinical areas. One clinician reflected: *"the low frequency of clients with really complex feeding issues has made them difficult to manage".*

Interestingly, an increase of confidence was not reflected with more clinical experience. The majority of respondents stated they were "moderately" to "very" confident working with Fussy Eaters irrespective of their experience. Confidence levels were on average low for Enteral Feeding and Infant Feeding with over 50% saying they were "not at all" or "a little" confident regardless of years of experience. A lack of increase in confidence as clinicians become more experienced suggests that opportunities that help to increase clinician confidence have not been available, allowing little opportunity for growth over time. A lack of increase in confidence with more experience may also be due to the career path in CHSA LHN, with more experienced clinicians often moving into management roles and reducing their clinical time, hence having fewer opportunities to develop their clinical skills.

Clinicians were asked to identify what would improve their confidence and competence in working with paediatric feeding issues, rating their top three choices. Many respondents expressed a strong desire to develop their skills in paediatric feeding. An OT responded *"I would love to have more experience*

and knowledge in the area so that I can better contribute from an OT perspective. I am not confident in this area at all". The most identified tools to develop confidence and competence were training and development opportunities (82.3%) and work shadowing (69.6%).

Many clinicians (53.2%) felt that more opportunity and experience working with paediatric feeding would improve their confidence and competence. One clinician stated *"I would definitely like to learn more in this area as I currently do not feel confident seeing these clients ... however I would be if I had the knowledge and opportunity to do so".* Experience and exposure working with paediatric feeding can be an issue in CHSA LHN as allied health services are provided across all ages. Only 43% of respondents stated they work with paediatric clients for 50% or more of their clinical time, and only a portion of these paediatric clients would be seen for feeding issues. Hence, most clinicians are seeing a proportionately small percentage of paediatric feeding clients, making opportunity to work with these clients difficult to attain. This is consistent with the "Specialist Generalist" skillset of many rural AHPs.

Standard resource development, shared resources and participation in a competency framework were also popular choices to help develop confidence and competence with over 40% of clinicians selecting each of these. One respondent stated *"I do like the idea of a competency framework as long as it has flexibility between disciplines and geographical location".*

Recommendations

This study highlights a number of recommendations that should be considered as strategies to reduce risk and improve outcomes for paediatric feeding clients. These priorities will be prioritised and actioned by the CHSA LHN paediatric feeding network, with input encouraged by other AHPs. Progress will be communicated through the CHSA LHN Early Childhood Forum. Recommendations include:

1. Training needs
    - Develop recommendations around suitable training for AHPs working with paediatric feeding clients in CHSA LHN. This should be achieved by researching paediatric feeding approaches which are evidence-based and relevant to regional settings.
    - Consider networking opportunities that can provide training and support within CHSA LHN, such as a journal club, a multi-disciplinary paediatric feeding email distribution list, and networking opportunities with other organisations such as acute hospitals and disability services who share a similar focus in this area.
2. Service models
    - Develop service models that encourage an inter-disciplinary team approach consistent with evidence as to the strength of this approach. This should include an outline of each AHP's role within the team.
    - Research current tools and develop processes for measuring outcomes for paediatric feeding clients.
    - Recommend the most effective and evidence based modes of service delivery for different types of clients: parent-focused groups, child-focused therapy groups or individual therapy. This will ensure that similar types of clients receive similar types of services, regardless of location in country South Australia.
    - Develop guidelines to assist the consistent prioritisation of paediatric feeding clients.

3. Resource requirements

    - Develop common resources for use with paediatric clients across CHSA LHN, including assessment tools, intervention models (including group intervention guidelines) and parent handouts.

    - Explore the development of a competency framework in the area of paediatric feeding.

4. Opportunity

    - Explore service delivery models within CHSA LHN teams that provide clinicians an opportunity to work with paediatric feeding clients.

    - Advocate for opportunities for staff to complete work-shadowing in the area of paediatric feeding and explore relationships with larger organisations offering paediatric feeding services.

References

1. Struber, J (2004) Recruiting and retaining allied health professional in rural Australia: Why is it so difficult? The Internet Journal of Allied Health Sciences and Practice, Vol. 2 No. 2.

2. Country Health SA Local Health Network 2012-13 Business Plan. Government of South Australia, SA Health.

3. Manikam, R. (2000) Paediatric Feeding Disorders. Journal of Clinical Gastroenterology, Vol 30 (1), 34-46

4. Humphreys, J., Hegney, D., Lipscombe, J., Gregory, G., Chater, B. (2002) Whither rural health? Reviewing a decade of progress in rural health. Aust J. Rural Health, 10, 2-14.

5. Arvedson, J (2008) Assessment of pediatric dysphagia and feeding disorders: Clinical and instrumental approaches. Developmental Disabilities Research Reviews. 14: 118-127

6. Miller, C., Burklow, K., Santoro, K., Kirby, E., Mason, D., Rudolph, C. (2001) An inter-disciplinary team approach to the management of pediatric feeding and swallowing disorders. Children's Health Care, 30 (3), 201-218.