

## Appendix 1

### Reporting Guidelines Checklist

*A consensus-based checklist for reporting of survey studies (CROSS) (Sharma et al., 2021)*

Section/topic	Item	Item description	Reported on page #
<b>Title and abstract</b>			
Title and abstract	1a	State the word “survey” along with a commonly used term in title or abstract to introduce the study’s design.	1
	1b	Provide an informative summary in the abstract, covering background, objectives, methods, findings/results, interpretation/discussion, and conclusions.	1
<b>Introduction</b>			
Background	2	Provide a background about the rationale of study, what has been previously done, and why this survey is needed.	6
Purpose/aim	3	Identify specific purposes, aims, goals, or objectives of the study.	7
<b>Methods</b>			
Study design	4	Specify the study design in the methods section with a commonly used term (e.g., cross-sectional or longitudinal).	8
	5a	Describe the questionnaire (e.g., number of sections, number of questions, number and names of instruments used).	8
Data collection methods	5b	Describe all questionnaire instruments that were used in the survey to measure particular concepts. Report target population, reported validity and reliability information, scoring/classification procedure, and reference links (if any).	8
	5c	Provide information on pretesting of the questionnaire, if performed (in the article or in an online supplement). Report the method of pretesting, number of times questionnaire was pre-tested, number and demographics of participants used for pretesting, and the level of similarity of demographics between pre-testing participants and sample population.	8
	5d	Questionnaire if possible, should be fully provided (in the article, or as appendices or as an online supplement).	see supplemental material
Sample characteristics	6a	Describe the study population (i.e., background, locations, eligibility criteria for participant inclusion in survey, exclusion criteria).	8
	6b	Describe the sampling techniques used (e.g., single stage or multistage sampling, simple random sampling, stratified sampling, cluster sampling, convenience sampling). Specify the locations of sample participants whenever clustered sampling was applied.	9

	6c	Provide information on sample size, along with details of sample size calculation.	8
	6d	Describe how representative the sample is of the study population (or target population if possible), particularly for population-based surveys.	8
	7a	Provide information on modes of questionnaire administration, including the type and number of contacts, the location where the survey was conducted (e.g., outpatient room or by use of online tools, such as SurveyMonkey).	9
Survey administration	7b	Provide information of survey's time frame, such as periods of recruitment, exposure, and follow-up days.	9
		Provide information on the entry process: →For non-web-based surveys, provide approaches to minimize human error in data entry.	
	7c	→For web-based surveys, provide approaches to prevent "multiple participation" of participants.	not completed
Study preparation	8	Describe any preparation process before conducting the survey (e.g., interviewers' training process, advertising the survey).	9
Ethical considerations	9a	Provide information on ethical approval for the survey if obtained, including informed consent, institutional review board [IRB] approval, Helsinki declaration, and good clinical practice [GCP] declaration (as appropriate).	9
	9b	Provide information about survey anonymity and confidentiality and describe what mechanisms were used to protect unauthorized access.	9
	10a	Describe statistical methods and analytical approach. Report the statistical software that was used for data analysis.	9
	10b	Report any modification of variables used in the analysis, along with reference (if available).	not completed
Statistical analysis	10c	Report details about how missing data was handled. Include rate of missing items, missing data mechanism (i.e., missing completely at random [MCAR], missing at random [MAR] or missing not at random [MNAR]) and methods used to deal with missing data (e.g., multiple imputation).	not completed
	10d	State how non-response error was addressed.	not completed
	10e	For longitudinal surveys, state how loss to follow-up was addressed.	not applicable
	10f	Indicate whether any methods such as weighting of items or propensity scores have been used to adjust for non-representativeness of the sample.	not completed
	10g	Describe any sensitivity analysis conducted.	not completed

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**Results**


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Respondent	11	Report numbers of individuals at each stage of the study. Consider using a	8
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characteristics	a	flow diagram, if possible.	
	11 b	Provide reasons for non-participation at each stage, if possible.	8
	11 c	Report response rate, present the definition of response rate or the formula used to calculate response rate.	not completed
	11 d	Provide information to define how unique visitors are determined. Report number of unique visitors along with relevant proportions (e.g., view proportion, participation proportion, completion proportion).	not completed
Descriptive results	12	Provide characteristics of study participants, as well as information on potential confounders and assessed outcomes.	not completed
	13 a	Give unadjusted estimates and, if applicable, confounder-adjusted estimates along with 95% confidence intervals and p-values.	not completed
Main findings	13 b	For multivariable analysis, provide information on the model building process, model fit statistics, and model assumptions (as appropriate).	not applicable
	13 c	Provide details about any sensitivity analysis performed. If there are considerable amount of missing data, report sensitivity analyses comparing the results of complete cases with that of the imputed dataset (if possible).	not completed
<b>Discussion</b>			
Limitations	14	Discuss the limitations of the study, considering sources of potential biases and imprecisions, such as non-representativeness of sample, study design, important uncontrolled confounders.	17
Interpretations	15	Give a cautious overall interpretation of results, based on potential biases and imprecisions and suggest areas for future research.	14
Generalizability	16	Discuss the external validity of the results.	18
<b>Other sections</b>			
Role of funding source	17	State whether any funding organization has had any roles in the survey's design, implementation, and analysis.	19
Conflict of interest	18	Declare any potential conflict of interest.	19
Acknowledgements	19	Provide names of organizations/persons that are acknowledged along with their contribution to the research.	Title page

## Appendix 2

### A Survey of Telehealth in Speech and Language Therapy in Ireland

#### About You

**1. Are you a CORU registered speech and language therapist working and/or living in Ireland?**

Yes

No

If no; **have you worked in Ireland as a speech and language therapist in the past?**

Yes

No

If no, your answers will not be included in this study.

**2. How long have you been qualified as a speech and language therapist for?**

<4 years

5-10 years

11-20 years

20+ years

**3. What is your staff grade?**

Staff grade

Senior

Clinical specialist

Manager

**4. What type of setting do you work in?**

Acute hospital

Outpatient- hospital

Rehabilitation hospital

Primary care- children

Primary care- adults

Disability setting

CAMHS

Primary school

Other (please specify):

**5. Is the service located in an urban or rural setting?**

Urban

Rural

Other (please specify):

**Experience of Using Telehealth**

**6. Do you have any experience in using telehealth in speech and language therapy?**

Yes

No

**If yes; how long have you been using telehealth for?**

1-6 months

7 months- 1 year

2-4 years

5+ years

**If no; please answer the following questions:**

**i) Are you aware of the use of telehealth in speech and language therapy?**

Yes

No

**ii) Do you feel telehealth can be a viable form of service delivery?**

Yes

No

**iii) What do you consider to be the greatest barrier to implementation of telehealth in speech and language therapy?**

Organisation barriers

Technology failures

Lack of training and guidance

Lack of information on therapeutic effectiveness

Client compliance

Clients' comorbidities (e.g. physical, sensory or intellectual disability)

Clients' skills are better served in person

Clients' attitudes towards telehealth

Lack of physical proximity to client/ environmental constraints

Nature of therapy (e.g. FEDS)

Building rapport with client

Unable to collaborate with members of multidisciplinary team

Feeling of isolation for SLT

Other (please specify):

*Skip logic: participants who have not used telehealth in speech and language therapy finished the survey here. Participants who have used telehealth continued the questionnaire with questions 9-21.*

**7. What age groups do you deliver SLT to using telehealth? (Select all that apply)**

0-5 years

6-18 years

19-65 years

>66 years

**8. What type of service do you deliver using telehealth? (Select all that apply)**

Assessment

Intervention/therapy

Training (for parents, teachers, SNAs, etc.)

Review/monitoring previously learned skills

Consultations with other members of MDT with/without client

Other (please specify):

**9. In what areas do you conduct therapy using telehealth? (Select all that apply)**

Developmental language disorder in children

Voice and resonance disorders in children  
 Speech sound disorders in children  
 Fluency disorders/stammering in children  
 Motor speech disorders in children e.g. apraxia  
 Intellectual disability in children  
 Autism spectrum disorders  
 ADHD  
 Dysphagia in children  
 Intellectual disability in adults  
 Adult language disorders e.g., aphasia  
 Cognitive communication disorders  
 Voice and resonance disorders in adults  
 Speech sound disorders in adults  
 Fluency disorders in adults  
 Motor speech disorders e.g., dysarthria, apraxia  
 Dysphagia in adults  
 Other (please specify):

**10. What do you consider to be the greatest benefit of implementing telehealth in SLT?**

Caseload management  
 Decreased travel for SLT  
 Professional growth  
 Can see individual in their own setting  
 Other (please specify):

**11. What do you consider to be the greatest barrier to implementation of telehealth in SLT?**

Organisation barriers  
 Technology failures  
 Lack of training and guidance  
 Lack of information on therapeutic effectiveness  
 Client compliance  
 Clients' comorbidities (e.g. physical, sensory or intellectual disability)

Clients' skills are better served in person

Clients' attitudes towards telehealth

Lack of physical proximity to client/ environmental constraints

Nature of therapy (e.g. FEDS)

Building rapport with client

Unable to collaborate with members of multidisciplinary team using

telehealth Feeling of isolation for SLT

Other (please specify):

**12. Overall, what is the feedback offered by your clients about using telehealth for SL?**

Very good

Good

Satisfactory

Not satisfactory

**13. What have your clients reported as the greatest benefit of telehealth in SLT?**

Increased access to SLT services for client

Motivated by technology

Satisfactory follow-up or monitoring

Do not need to travel to clinic or rely on others for transport

Other (please specify):

**12. What have your clients reported as the greatest disadvantage of telehealth in SLT?**

Using equipment

Slow internet

Auditory issues with microphone

Other technology failures

Preference for face-to-face interaction

Other (please specify):



**13. Do any adjustments have to be made for effective telehealth in comparison to face-to-face therapy?**

Yes

No

**If yes; please specify what areas need to be adjusted:**

Technology

Therapy materials

Interaction from parent/caregiver

Environment

Reinforcement

Time

Frequency of sessions

Other (please specify):

**16. Do you rely on assistance from the clients' communication partner in telehealth delivery?**

Yes

No

**If yes; please answer the following questions:**

**i) Who most commonly assists in telehealth sessions?**

Parent/caregiver

Sibling

Spouse/Partner

Other (please specify):

**ii) In what way does the communication partner help?**

Assisting with technology

Homework

Assisting with assessment

Practising newly learned behaviours

Other (please specify):

**17. How did you learn to implement telehealth?**

Self-taught through personal experience

Informally trained by colleague

Formal training

Other (please specify):

**18. What other supports would you like in order to develop your telehealth skills?**

Technological equipment upgrade

Training courses on the application of telehealth for different clinical populations

Access to literature and webinars which focus on telehealth skills

Discussion boards for SLTs working in Ireland to express their experiences with

telehealth Other (please specify):

**19. Do you think that training in telehealth as a form of service delivery should be included in undergraduate and postgraduate SLT degrees?**

Yes

No

**20. Have the recent changes in service delivery arising from COVID-19 influenced your attitudes in relation to telehealth?**

Yes

No

Please explain in what way:

**21. Have the recent changes in service delivery arising from COVID-19 influenced your practice in relation to telehealth?**

Yes

No

Please explain in what way:

**Online Programmes in Speech and Language Therapy**

We are currently developing online programmes for use in speech and language therapy. Supports will be delivered online via e-learning resources to communication partners. Supports will be accessed via an app or website at a time and location convenient for the learner. These supports would be complemented with online teleconferencing coaching from a speech and language therapist.

**22. Would you be interested in using online programmes like these in your practice?**

Yes

No

Please explain why:

**23. What barriers would you see to using online programmes like these in your practice?**

Open text

**16. What advantages would you see to online programmes versus traditional group approaches?**

Open text

**17. What areas of practice do you think might suit this service model?**

Open text

*Thank you for taking this survey. We really appreciate you taking the time to complete it and you will help us further understand how telehealth is used in speech and language therapy in Ireland.*