

Original articles

Factors associated with the professional use of social media by speech-language therapists and audiologists working in Brazil: a web-based survey

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ABSTRACT

Purpose: to verify personal and work factors, and specialties of Brazilian speech-language therapists and audiologists who use social media profiles, professionally.

Methods: an online questionnaire was used to carry out a population survey with working speech-language therapists and audiologists in Brazil, in 2020. The outcome of “How would you describe your use of social media?” was recategorized into “personal use” and “professional use”. Absolute and relative frequencies were calculated. Multivariate prevalence ratios were adjusted using the Poisson regression model with robust variance and 95% confidence intervals.

Results: out of the 442 respondents, 93.7% were females, with a mean age of 38.0 years (± 11.1). The primary outcome, “professional use of social media”, occurred for 64.7% of the participants. In the multivariate analysis, private employment, participants in the 31–45 age range, and >26 years of work history after graduation were significantly associated with the professional use of social media.

Conclusion: social media are used by approximately two-thirds of Brazilian speech-language therapists and audiologists. This finding suggests a need for reflection and discussion about the proper use of social media for work purposes.

Keywords: Speech, Language and Hearing Sciences; Health Personnel; Telemedicine; Online Social Networking; Social Media

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INTRODUCTION

Social media, also known as online social networks, are internet-based tools that are mediated by information and communication technologies (ICTs) to accommodate the exchange of information and the dissemination and creation of user content^{1,2}. These tools offer a wide variety of resources that can be used according to users' interests³.

There has been a notable increase in the popularity of these tools. Most human activities involve them, and 3.6 billion people use them worldwide^{4,5}. According to the Brazilian geography and statistics institute (IBGE), in 2019 82.7% of the general population had access to the internet and 95.7% used this service to send or receive text messages⁶.

The development of social media has revolutionized and intensified forms of interaction and increased the access to and dissemination of information in all areas, including human health⁷. Online social networks are the best-known example of how digital health has shaped the participatory health paradigm, given its potential to support the provision of health services, as well as the search for and provision of health information^{8,9}.

Despite the numerous benefits and potential to promote health care, using social media poses risks, many of them arising from the inappropriate management of these means of communication¹⁰. Studies have shown that networking with colleagues and connecting with other professionals from the same field are two of the main benefits of participating on social media platforms. Several platforms provide opportunities for professional development such as online discussions about clinical cases as well as exchanges between communities of individuals practicing the same specialty¹¹. The lack of clear guidelines regarding privacy on social media can threaten patient autonomy and the trust between professionals and patients¹².

In some areas of health, such as nursing, medicine and dentistry, there has been an increase in the number of published studies on the behavior and perception of professionals who use social media¹²⁻¹⁷. However, in the field of speech-language therapy and audiology, studies on this topic are still scarce¹⁸.

Although there is a gap in the literature, the rights and responsibilities of speech-language therapists and audiologists (SLTAs) on social networks are already included in their professional codes of ethics. The rights involve publicizing services, creating or participating in discussion groups and giving lectures

and interviews on the aspects of speech-language pathology and audiology that fall within their field of expertise. Responsibilities on social media encompass expressing professional, evidence-based opinions with respect, addressing peers in a dignified and considerate manner, obtaining formal written consent and authorization from clients or their legal representatives, and also using caution and references when posting photos, videos, information, or messages¹⁹. However, there are still no other recommendations or guidelines for online behaviour.

Before issuing formal guidelines or recommendations for their online behavior, it is important to verify how social networks influence the professional lives of SLTAs. To facilitate the development of regulations and public policies regarding the proper use of social media, the first step is to investigate how they use these platforms professionally.

This research aimed to verify the personal and work factors, and specialties of Brazilian speech-language therapists and audiologists who use social media profiles, professionally.

METHODS

This was a cross-sectional study using an online population survey, carried out between November and December of 2020. All working SLTAs in Brazil who had access to social networks, and agreed to participate in the study, were considered eligible. Individuals who did not report any of the variables were excluded from the analysis. This research was approved by the university ethics committee of the Instituto de Psicologia at the Universidade Federal of Rio Grande do Sul, Brazil, under approval no. 4.401.801. All respondents filled out an online free and informed consent form.

Before calculating the sample size, the lack of data regarding the proportion of professionals who used social media in the target population was taken into consideration. An outcome proportion of 50%, a confidence level of 95% and a sampling error of 5% were used. In addition, 10% was included for loss prevention, leading to a total of 410 speech-language therapists. Sampling was performed in multiple stages, beginning with convenience sampling and then simple random subsampling per region of the country. This was done to keep the sample proportional to the number of SLTAs per region reported by the Brazilian federal speech-language and audiology council (CFFA) by April 2020, when data collection began²⁰. First, SLTAs with profiles on online social networks were selected. Then,

participants in groups with other SLTAs on platforms like Facebook®, WhatsApp® and Instagram® were included. From these, more SLTAs were found, using the snowball method.

Data were obtained through an online Google Forms questionnaire that was sent to working SLTAs in Brazil with profiles on social media. As there was no validated questionnaire available, previously published works were used to create a questionnaire (Appendix 1) consisting of 43 questions divided into three sections: (1) professional characteristics (2) social media use and (3) perception of social media use²¹⁻²⁴. The questions were tested in a pilot group of seven health professionals before data collection, to ensure the questions were clear and preserve the general acceptability of the research. Minimal corrections were made based on feedback from the pilot group.

The outcome (based on the responses to “How would you describe your use of social media?”) was categorized into professional use and personal use. The answers “predominantly professional use”, “exclusively professional use” and “personal and professional use” were considered professional use. The answers “exclusively personal use” and “predominantly personal use” were considered personal use.

The following individual factors were analyzed: “gender”, “age” (which was classified into 21–30 years, 31–45 years, and 46 years or more) and “education”. The last category was subdivided into undergraduate, *lato sensu* postgraduate (including “specialization” and

“residency”), and *stricto sensu* postgraduate (including “Master’s”, “Doctor’s” and “Post-doctor’s”) degrees.

“Employment sectors” were analyzed after being categorized as “private”, “public” and “mixed”. In the mixed group, respondents had more than one job or a working relationship with a non-governmental organization. The variable “work history after graduating” was subdivided into 0–10 years, 11–25 years and 26 years or more, “specialty”, and “employment setting”. The contextual factor was the “region of employment”.

Absolute and relative frequency analyses were performed with a 95% confidence interval (CI) stratified by descriptions of use. For an associative analysis of the outcome, multivariate prevalence ratios were (PR) used. A Poisson regression model with robust variance and 95% confidence intervals (95%CI) were used to adjust the analysis for possible confounding. Data were analyzed with SPSS v.21 software (Chicago: SPSS Inc).

RESULTS

In this study, 532 responses were collected and processed through simple random sub-sampling, according to the primary region in which the respondent worked. This left 443 responses. The participants were mostly female, with a mean age of 38.0 years (SD ± 11.1).

The outcome of “professional social media use” was reported by 286 (64.7%) individuals. The personal, work and contextual aspects, stratified by outcome, are presented in Table 1.

Table 1. Prevalence in social and personal aspects, stratified according to the description of social media use by speech-language therapists and audiologists in Brazil in 2020

Variables	Total	Personal use	Professional use
	n(%)	n(%)	n(%)
Sex			
Females	415(93.7%)	144(92.3)	271(94.4)
Males	28(6.3%)	12(7.7)	16(5.6)
Age			
21 – 30 years	139(31.4)	67(42.9)	72(25.1)
31 – 45 years	202(45.6)	63(40.4)	139(48.4)
46 or older	102(23)	26(16.7)	76(26.5)
Education			
Undergraduate degree	101(22.8)	48(30.8)	53(18.5)
Lato sensu postgraduate degree	212(47.9)	65(41.7)	147(51.2)
Stricto sensu postgraduate degree	130(29.3)	43(27.6)	87(30.3)
Employment sector			
Public sector	70(15.8)	35(22.4)	35(12.2)
Private sector	256(57.8)	76(48.7)	179(62.6)
Mixed	117(26.4)	45(28.8)	72(25.2)
Specialty*			
General practice	115(26)	46(29.5)	69(24.0)
Hearing	132(29.8)	55(35.3)	77(26.8)
Dysphagia	184(41.5)	66(42.3)	118(41.1)
Language	27(6.1)	8(5.1)	19(6.6)
Orofacial Myology	233(52.6)	72(46.2)	161(56.1)
Speech/fluency	182(41.1)	57(35.6)	125(43.6)
Collective Health	67(15.1)	26(16.7)	41(14.3)
Voice	150(33.9)	42(26.9)	108(37.6)
Work history after graduating			
0 – 10 years	212(47.9)	92(59.0)	120(42.0)
11 – 25 years	163(36.8)	51(32.7)	112(39.2)
>26 years	67(15.1)	13(8.3)	54(18.9)
Employment Settings*			
Hospital	77(17.4)	33(21.2)	44(15.3)
Outpatient clinic	359(81)	120(76.9)	239(83.3)
Intensive Care Unit (ICU)	62(14)	29(18.6)	33(11.5)
Home health	188(42.4)	59(37.8)	129(44.9)
Education	38(8.6)	8(5.1)	30(10.5)
Training other speech therapists and audiologists	72(16.3)	19(12.2)	53(18.5)
Research	61(13.8)	20(12.8)	41(14.3)
Region			
Southeast	232(52.4)	77(49.4)	155(54.0)
Northeast	82(18.5)	30(19.2)	52(18.1)
South	65(14.7)	24(15.4)	41(14.3)
Midwest	37(8.4)	12(7.7)	25(8.7)
North	27(6.1)	13(8.3)	14(4.9)

* More than one possible answer per respondent; n: sample size.

The age group that most used social media professionally was 31 to 45 years. As for education, the most prevalent type was SLTAs with a lato sensu postgraduate degree. SLTAs who had been practicing for the shortest time since graduating (between 0 and 10 years) were the largest group to professionally use social media.

Among the work aspects, privately employed professionals demonstrated the highest prevalence of professional social media use. Furthermore, SLTAs who

specialized in orofacial myology and those working in outpatient clinics showed a higher prevalence of professional social media use.

In all regions of the country, professional use was more prevalent than personal use. The Midwest region showed the greatest discrepancy between descriptions of use, with 67.6% of SLTAs using social media professionally, followed by the Southeast (66.8%), Northeast (63.4%), South (63.1%) and North (51.9%) regions.

Table 2. Prevalence in the description of social media use by speech-language therapists and audiologists working in Brazil, in 2020

Variables	Total	Personal use	Professional use
	n(%)	n(%)	n(%)
Use*			
To connect with other speech therapists and audiologists	328(74)	85(54.5)	243(84.7)
To connect with other health professionals	312(70.4)	84(53.8)	228(79.4)
To connect with patients that I already treat	201(45.4)	42(26.9)	159(55.4)
To connect with new patients	210(47.4)	41(26.3)	169(58.9)
To keep abreast of professional developments	299(67.5)	74(47.4)	225(78.4)
To follow professional organizations	254(57.3)	61(39.1)	193(67.2)
To follow speech therapy and audiology events	306(69.1)	79(50.6)	227(79.1)
To connect with potential patients/clients	214(48.3)	44(28.2)	170(59.2)
Social Media Sites*			
Instagram®	421(95)	138(88.5)	283(98.6)
Facebook®	354(79.9)	118(75.6)	236(82.2)
Twitter®	67(15.1)	30(19.2)	37(12.9)
Youtube®	199(44.9)	80(51.3)	119(41.5)
LinkedIn®	135(30.5)	37(23.7)	98(34.1)
WhatsApp®	399(90.1)	113(85.3)	266(92.7)
Frequency of social media use			
I keep the sites open all day	58(13.1)	22(14.1)	36(12.5)
I check several times a day	323(72.9)	114(73.1)	209(72.8)
I check once a day	43(9.7)	13(8.3)	30(10.5)
I check once a week	15(3.4)	6(3.8)	9(3.1)
I check once a month	3(0.7)	0(0.0)	3(1.0)
I have an account but I never check it	1(0.2)	1(0.2)	0(0.0)
Social media profile			
I just have one profile for personal use	71(16)	66(42.3)	5(1.7)
I just have one profile for professional use	20(4.5)	1(0.6)	19(6.6)
I just have one profile for personal and professional use	152(34.3)	38(24.4)	114(39.7)
I have two profiles, one personal and one professional	200(45.1)	51(32.7)	149(51.9)
Shared other colleagues' content			
Yes	337(76.1)	98(62.8)	239(83.3)
No	51(11.5)	34(21.8)	17(5.9)
I don't know/Maybe	8(1.8)	6(3.8)	2(0.7)
Not applicable	3(0.7)	1(0.6)	2(0.7)
Sometimes	44(9.9)	17(10.9)	27(9.4)

Variables	Total	Personal use	Professional use
	n(%)	n(%)	n(%)
Shared patient information			
Yes	159(35.9)	46(29.5)	113(39.4)
No	256(57.8)	100(64.1)	156(54.4)
I don't know/Maybe	6(1.4)	1(0.6)	5(1.7)
Not applicable	3(0.7)	2(1.3)	1(0.3)
Sometimes	19(4.3)	7(4.5)	12(4.2)
Shared patient photographs			
Yes	159(35.9)	52(33.3)	107(37.3)
No	257(58)	91(58.3)	166(57.8)
I don't know/Maybe	8(1.8)	2(1.3)	6(2.1)
Not applicable	2(0.5)	2(1.3)	0(0.0)
Sometimes	17(3.8)	9(5.8)	8(2.8)
Already received training to use social media			
Yes	111(25.1)	15(9.6)	96(33.4)
No	317(71.6)	134(85.9)	183(63.8)
I don't know/Maybe	13(2.9)	5(3.2)	8(2.8)
Not applicable	1(0.2)	1(0.6)	0(0.0)
Sometimes	1(0.2)	1(0.6)	0(0.0)
Contact with patients on social media sites			
Yes	336(75.8)	108(69.2)	228(79.4)
No	107(24.2)	48(30.8)	59(20.6)

* More than one possible answer per respondent; n: sample size.

A description of social media use, stratified by outcome, is presented in Table 2. Most SLTAs checked their social media several times a day. In addition, 74% of the respondents used social media to connect with other SLTAs, 67.5% to stay abreast of professional developments, 47.4% to connect with patients they

already treat, and 48.3% to connect with potential clients/ patients.

Most SLTAs had not received training to use social media and had two profiles, one for personal purposes and the other for professional purposes. Moreover, 35.9% had already posted their patients' photos or data on these platforms.

Table 3. Crude and adjusted prevalence ratios (PR) for factors associated with the professional use of social media by speech-language therapists and audiologists in Brazil, in 2020

Variables	Gross PR (CI 95%)	p-value	Adjusted PR* (CI 95%)	p-value
Employment sector				
Public sector	1	-	1	-
Private sector	1.40 (1.09 – 1.79)	0.07	1.44 (1.13 – 1.85)	<0.01
Mixed	1.23 (0.9 – 1.62)	0.13	1.25 (0.95 – 1.65)	0.99
Age				
21 – 30 years	1	-	1	-
31 – 45 years	1.32 (1.10 – 1.59)	<0.01	1.25 (0.99 – 1.57)	0.05
46 or older	1.43 (1.17 – 1.74)	0.03	1.10 (0.77 – 1.57)	0.59
Work history after graduating				
0 – 10 years	1	-	1	-
11 – 25 years	1.21 (1.03 – 1.42)	0.15	1.11 (0.91 – 1.35)	0.27
26 or older	1.41 (1.19 – 1.67)	0.00	1.42 (1.01 – 2.00)	0.04

*Adjusted for work, age and time after graduating;
PR: prevalence ratio;
CI: confidence interval.

Table 3 shows the crude and adjusted analyses of the association between type of employment, age, work history after graduating, and the outcome. SLTAs from the private sector demonstrated a higher prevalence ratio than SLTAs from the public sector (PR 1.40 95%CI 1.09 – 1.79). Respondents who were 46 or older showed a higher prevalence of professional social media use when compared to their younger peers aged 21 – 30 years (PR 1.41 95%CI 1.17 – 1.74). In addition, those who had practiced speech therapy and audiology for a longer time after graduating presented a higher prevalence of the primary outcome than individuals with shorter work experience (PR 1.41 95%CI 1.19 – 1.67). In the adjusted analysis, privately employed SLTAs between the ages of 31 to 45, who had practiced for more than 26 years after graduating, showed a statistically significant association with professional social media use.

DISCUSSION

In this study, 64.7% of working SLTAs in Brazil used their social media profiles professionally. No previous studies about this topic had been found in the literature from the field of speech-language therapy and audiology. However, in related fields such as dentistry and pharmacy, studies have reported a prevalence of 55% and 61.1% in the professional use of these platforms, respectively^{22,25}.

In the North region, where the smallest number of SLTAs practice, there was a lower prevalence of professional social media use (51.9%). This suggests that, in regions with more concentrated work markets, such as the Southeast, more SLTAs use social media professionally. However, as another Brazilian study showed, the difference between the prevalence in this and other regions is relatively small. Furthermore, the researchers found no differences in the perception SLTAs have about social media, regardless of the region¹⁴.

The most frequently used social media sites and tools for professional purposes were Instagram® (98.6%), WhatsApp® (92.7%) and Facebook® (82.2%), and most SLTAs used social media several times a day (72.8%) for professional activities. Another study involving radiologists presented similar data: the most frequently used social media site was Facebook® (59.6%) and most of the participants used social media sites several times a day (47.4%)²¹. Moreover, our findings suggest that awareness campaigns for SLTAs can be carried out through these tools, especially since 67.5% of SLTAs used social media to keep up with

professional developments and 57.3% to follow professional organizations.

Although the greatest portion (45.1%) of SLTAs had two profiles on social media, one for personal use and another for professional use, 39.7% had only one profile for both purposes. It is well known that the online image of health professionals can invite criticism, affect a patient's ability to trust in their health care, and impair their compliance with therapeutic plans²⁶. Using one social media account for personal and professional purposes may also violate a professional's privacy. In addition, accounts created to address health-related issues should identify the original author, and great care must be taken to publish appropriate content²⁷.

Most SLTAs share other professionals' content (76.1%) and have shared data and photos of their patients on social media sites (35.9%). On the other hand, only 25.1% have received some type of training on social media use and 31.9% said they did not post content based on strict scientific evidence. Although SLTAs have the right to advertise their services online, in order to publish patient data and images the clients or their legal representatives must first provide formal, written consent¹⁹. Additionally, when sharing online content, the sources of published material should be checked. However, most professionals post content with no scientific basis, and this can lead to the dissemination of erroneous or inappropriate content or information.

By using social media sites for professional purposes, healthcare professionals usually aim to address patient education and career needs or promote themselves²⁸. Our data and results reflect this, since most SLTAs reported using social media to connect with their peers, keep abreast of professional developments, connect with patients they already treat, or connect with potential clients/patients. A study involving pharmacists in Alberta, Canada published similar results: the participants reported that the main benefit to using social media professionally was the ability to connect with fellow pharmacists and keep abreast of the literature in their field²².

Speech-language therapists and audiologists employed in the private sector and engaged in outpatient work seemed to demonstrate a higher prevalence of professional social media use, due to lower job stability and a need to attract new clients. This hypothesis was proven in a study involving dentists in Ecuador, in which employment in private institutions

was associated with social media use to connect with patients (OR 2.17 CI 1.14 – 4.16)¹⁵.

Still, with regard to the area of expertise, there seems to be a greater demand in the specialty of orofacial myology to identify and disseminate relevant information regarding impairment to patients and their families. This may stem from the fact that signs of orofacial myofunctional disorders are not as easily identifiable to non-experts as language disorders (oral or written) or dysphagia, for example. This may justify the higher prevalence of professional social media use by orofacial myologists than SLTAs who specialize in language disorders.

Another study involving health professionals found that younger age groups showed a higher prevalence of social media use and more time spent on these networks²⁹. The data from this study also revealed that younger individuals used social media less professionally. This was attributed to their intense personal use of social media, which may have led them to respond that they use social media sites predominantly for personal purposes. Consequently, this type of response was analyzed as “personal use”.

Networking through social media allows individuals to connect with others with similar interests, promote collaborations and gain support for personal and professional growth¹¹. Considering that professionals with *stricto sensu* graduate degrees aim for an academic career, their work does not need to be publicized on a large scale. Thus, their professional relationships are usually managed privately by email, while their social media sites are used predominantly for personal purposes. Conversely, respondents with *lato sensu* postgraduate degrees used social media more frequently for professional purposes, to enhance their work options.

Social media has caused a significant shift in healthcare professions in recent years. Part of this change is related to increasing bodies of knowledge, and quicker and easier access to new information. A recent study of physicians in Saudi Arabia reported that 43.4% with more than 10 years of professional experience recognize the role of social media in improving knowledge and skills⁵. Respondents with a longer history of practicing speech-language therapy and audiology after graduating (>26 years) were associated with a higher use of social media for

professional purposes. This may be related to a greater confidence in addressing professional issues in an environment where information disseminates quickly.

This study had some limitations. Using an electronic survey to collect data meant that a portion of the target population would not respond to this format nor use this means of communication. However, considering that, among the population with higher education in Brazil, 98% have access to the internet and 88% use social networks, it is reasonable to conclude that a large portion of the target population was included in this research³⁰. Another limitation was not using a probability sampling technique in the first sampling step. This may have affected the generalization of results for the entire population of working SLTAs in Brazil, since individuals from the same groups tend to have similar habits. However, the sample consisted of respondents from all regions of the country and, to mitigate this bias, subgroup analyses were performed for age, employment sector and time after graduating. Lastly, the questionnaire was not validated. However, a pilot study was carried out to assess and correct potential weaknesses in the intrinsic qualities of the instrument regarding its accuracy and intelligibility.

CONCLUSION

In this study, the factors associated with the professional use of social media by SLTAs with a social media profile were private employment, ages between 31 and 45 years, and a work history of more than 26 years after graduation. In addition, the high prevalence of professional social media use by these Brazilian professionals suggests a need for further studies on the subject. Also, as is already the case with other professions in the health sector, SLTAs should reflect on and hold discussions about the proper use of these means of communication for work purposes.

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APPENDIX 1. SURVEY QUESTIONNAIRE ON THE PROFESSIONAL USE OF SOCIAL MEDIA BY SPEECH-LANGUAGE THERAPISTS AND AUDIOLOGISTS IN BRAZIL (2020 EDITION)

Post-survey consent:
Having understood the above information, by clicking on «I agree» you freely consent to participate in the research project and authorize the disclosure of information you provide in scientific congresses and publications, as long as the data remain anonymous. If you do not wish to participate in the survey, click on 'I do not agree'.
<input type="checkbox"/> I agree
<input type="checkbox"/> I do not agree
Professional characteristics
To answer this questionnaire, consider this statement: Social media are any internet tool or application that allows the exchange of information and user-generated content to build a network or virtual community, and is synonymous with "Web 2.0" or "social network".
1. Date of birth (DD/MM/YYYY)
2. Sex
<input type="checkbox"/> Female
<input type="checkbox"/> Male
<input type="checkbox"/> Non-binary
<input type="checkbox"/> Prefer not to answer
3. Program end date for the bachelor's degree in speech-language pathology and audiology (DD/MM/YYYY)
4. Education (the highest level successfully completed)
<input type="checkbox"/> Bachelor's degree
<input type="checkbox"/> Specialization degree (360+ hours)
<input type="checkbox"/> Residency
<input type="checkbox"/> Professional or academic master's degree
<input type="checkbox"/> Doctorate degree
<input type="checkbox"/> Post-doctorate degree
5. In what region of the country do you work most of the time?
<input type="checkbox"/> North (Acre, Amazonas, Tocantins, Pará, Amapá, Roraima, Rondônia)
<input type="checkbox"/> Northeast (Bahia, Sergipe, Alagoas, Pernambuco, Paraíba, Rio Grande do Norte, Ceará, Piauí, Maranhão)
<input type="checkbox"/> East central (Distrito Federal, Goiás, Mato Grosso, Mato Grosso do Sul)
<input type="checkbox"/> Southeast (São Paulo, Rio de Janeiro, Espírito Santo, Minas Gerais)
<input type="checkbox"/> South (Rio Grande do Sul, Santa Catarina, Paraná)
6. Employment sector (Choose all answers that apply)
<input type="checkbox"/> Private
<input type="checkbox"/> Public
<input type="checkbox"/> Government
<input type="checkbox"/> Non-profit organization or community association
<input type="checkbox"/> Self-employed/private clinic
7. Specialty (Choose all answers that apply)
<input type="checkbox"/> General practice
<input type="checkbox"/> Audiology
<input type="checkbox"/> Dysphagia
<input type="checkbox"/> Language
<input type="checkbox"/> Orofacial Myofunctional Disorders
<input type="checkbox"/> Speech/Fluency
<input type="checkbox"/> Public Health
<input type="checkbox"/> Voice
8. Main patient age-group: (Choose all answers that apply)
<input type="checkbox"/> 0 to 17 years
<input type="checkbox"/> 18 to 59 years
<input type="checkbox"/> Over 60 years

9. Employment setting (Choose all answers that apply)
<input type="checkbox"/> Outpatient care (private or public clinics)
<input type="checkbox"/> Hospital (nursing departments or wards)
<input type="checkbox"/> Intensive Care Unit
<input type="checkbox"/> Home care
<input type="checkbox"/> School
<input type="checkbox"/> University faculty member
<input type="checkbox"/> Research
<input type="checkbox"/> Other:
Social media use
10. Select the social media platforms you use (Choose all answers that apply)
<input type="checkbox"/> I do not use any social media platforms
<input type="checkbox"/> Facebook
<input type="checkbox"/> Instagram
<input type="checkbox"/> Twitter
<input type="checkbox"/> Youtube
<input type="checkbox"/> LinkedIn
<input type="checkbox"/> WhatsApp
<input type="checkbox"/> Other:
11. Devices (mobile phone, tablet, computer, etc.) used to access social media:
<input type="checkbox"/> Personal
<input type="checkbox"/> Shared
<input type="checkbox"/> Both (for example: a personal mobile phone and a shared computer)
<input type="checkbox"/> Not applicable
12. How often do you change your social media passwords?
<input type="checkbox"/> More than once a month
<input type="checkbox"/> Once a month
<input type="checkbox"/> Every 6 months
<input type="checkbox"/> Once a year
<input type="checkbox"/> Rarely
<input type="checkbox"/> Never
<input type="checkbox"/> Not applicable
13. Answer the questions below (Choose one answer per question):
13.1 Do you share content from other professionals on social media? For example, articles published by other speech-language pathologists and audiologists?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.2 Have you ever participated in online forums about speech-language pathology and audiology practices?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.3 Have you ever shared information like patient interviews and activities on social media?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes

13.4 Have you ever shared pictures of your patients on social media?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.5 Have you ever changed your social media privacy settings to restrict public access to information?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.6 Have you ever Googled your own name or used another search engine to do so (for example, Bing)?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.7 Have you ever been trained or qualified in the professional use of social media?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.8 Has a patient ever mentioned non-authorized information about you that they found publicly available online?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.9 Have you ever encouraged your patients to read about their communication or swallowing disorder/complaint online?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
13.10 Have you ever worked with professionals you met on the internet?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> Not applicable
<input type="checkbox"/> Sometimes
14. Have you ever changed your social media privacy settings to restrict public access to information? If so, what platforms were they? (Choose all answers that apply)
<input type="checkbox"/> No
<input type="checkbox"/> Instagram
<input type="checkbox"/> Facebook
<input type="checkbox"/> WhatsApp
<input type="checkbox"/> Twitter
<input type="checkbox"/> Other:
15. Do you only post evidence-based content?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know

15a. If so, what sources do you use for these posts? (Choose all answers that apply)
<input type="checkbox"/> Scientific articles
<input type="checkbox"/> Books
<input type="checkbox"/> Websites
<input type="checkbox"/> Reliable professionals
<input type="checkbox"/> Other:
16. How frequently do you use social media?
<input type="checkbox"/> All day
<input type="checkbox"/> Several times a day
<input type="checkbox"/> Once a day
<input type="checkbox"/> Weekly
<input type="checkbox"/> Monthly
<input type="checkbox"/> I have an account/accounts I never use
17. How would you describe your social media use? (Choose the best answer)
<input type="checkbox"/> Exclusively personal
<input type="checkbox"/> Predominantly personal
<input type="checkbox"/> Personal and professional
<input type="checkbox"/> Predominantly professional
<input type="checkbox"/> Exclusively professional
18. If you do NOT use social media for professional purposes, choose all answers that apply:
<input type="checkbox"/> I do not have time
<input type="checkbox"/> I do not think it is important
<input type="checkbox"/> I prefer more traditional methods of communication, education, and collaboration
<input type="checkbox"/> I worry about personal privacy
<input type="checkbox"/> I worry about patient privacy
<input type="checkbox"/> I do not know how to use social media
<input type="checkbox"/> Other, explain:
<input type="checkbox"/> Not applicable
19. If you DO use social media for professional purposes, describe how you use them (Choose all answers that apply)
<input type="checkbox"/> To connect with other speech-language therapists and audiologists
<input type="checkbox"/> To connect with other health professionals
<input type="checkbox"/> To interact with current patients
<input type="checkbox"/> To interact with new patients
<input type="checkbox"/> To keep abreast of professional practices
<input type="checkbox"/> To follow professional organizations
<input type="checkbox"/> For continued education
<input type="checkbox"/> To follow speech-language therapy and audiology events
<input type="checkbox"/> To connect with potential patients/clients
<input type="checkbox"/> Not applicable
20. Regarding the social media platforms you use:
<input type="checkbox"/> I only have one user profile for personal purposes
<input type="checkbox"/> I only have one user profile for professional purposes
<input type="checkbox"/> I only have one user profile, for personal and professional purposes
<input type="checkbox"/> I have two user profiles, one personal and one professional
21. Why do you use social media? (Choose all answers that apply)
<input type="checkbox"/> To stay in touch with friends and family
<input type="checkbox"/> To interact with patients
<input type="checkbox"/> To help promote health by sharing content
<input type="checkbox"/> To get new patients/clients
<input type="checkbox"/> To teach or train other speech-language therapists and audiologists
<input type="checkbox"/> Other:

22. As a speech-language therapist and audiologist, do you use social media to interact with patients? If so, what tool or platform do you use?
<input type="checkbox"/> No
<input type="checkbox"/> Facebook
<input type="checkbox"/> Instagram
<input type="checkbox"/> WhatsApp
<input type="checkbox"/> E-mail
<input type="checkbox"/> Other:
23. If you used online information that a patient had posted, to help with their speech-language or hearing treatment, would you discuss it with them?
<input type="checkbox"/> Yes, Always
<input type="checkbox"/> Yes, sometimes
<input type="checkbox"/> Yes, occasionally
<input type="checkbox"/> No
<input type="checkbox"/> I do not know/maybe
<input type="checkbox"/> I would not use publicly available information
24. Have you ever had a speech-language or hearing patient send you a friend request or an invitation to follow them on social media? If so, what did you do?
<input type="checkbox"/> No
<input type="checkbox"/> I accepted the request/invitation
<input type="checkbox"/> I just deleted the request
<input type="checkbox"/> I deleted the request and sent a private message to explain
<input type="checkbox"/> I deleted the request and explained why during the following therapy session
25. If you use social media for professional purposes, what is the MOST beneficial aspect?
<input type="checkbox"/> Interacting with other speech-language therapists and audiologists
<input type="checkbox"/> Interacting with patients
<input type="checkbox"/> Interacting with other health professionals
<input type="checkbox"/> Keeping abreast of speech-language and audiology practices
<input type="checkbox"/> Continued education
<input type="checkbox"/> Other:
Perception of social media usage
26. Regarding the effect of social networking on professional development, I believe it can be
<input type="checkbox"/> Very beneficial
<input type="checkbox"/> Beneficial
<input type="checkbox"/> Neutral/irrelevante
<input type="checkbox"/> A little harmful
<input type="checkbox"/> Very harmful
27. Select the barriers that hinder social media use for professional purposes (choose all answers that apply)
<input type="checkbox"/> I have no internet access
<input type="checkbox"/> I do not understand how to use social media
<input type="checkbox"/> I see no benefit in using social media
<input type="checkbox"/> I did not know social media could be used for professional purposes
<input type="checkbox"/> I worry about the responsibility
<input type="checkbox"/> I do not have time
<input type="checkbox"/> None
<input type="checkbox"/> Other:
28. Is it appropriate for doctors to look up publicly available information about patients online?
<input type="checkbox"/> Yes, in any situation
<input type="checkbox"/> Yes, but only in an emergency
<input type="checkbox"/> Only if the patient agrees
<input type="checkbox"/> It is not appropriate
<input type="checkbox"/> I do not know

29. Select one answer for each question below:
29.1 Does social media affect how patients choose health care providers?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know
<input type="checkbox"/> Sometimes
29.2 Is it appropriate for speech-language pathologists and audiologists to use social media to interact professionally with patients?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know
<input type="checkbox"/> Sometimes
29.3 Is it the duty of speech-language pathologists and audiologists to refute inadequate or incorrect online information about their clinical practice?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know
<input type="checkbox"/> Sometimes
29.4 Do you think information on the internet about communication and swallowing disorders is reliable?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know
<input type="checkbox"/> Sometimes
29.5 After sharing information online, do you think it can be removed from social media?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know
<input type="checkbox"/> Sometimes
29.6 Are you concerned about potential legal issues regarding patient care online?
<input type="checkbox"/> Yes
<input type="checkbox"/> No
<input type="checkbox"/> I do not know
<input type="checkbox"/> Sometimes