Do best practice recommendations align with current aphasia practices in the Swedish care context: a national survey

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ABSTRACT

Background: For healthcare professionals, decision-makers and taxpayers, clinical guidelines and recommendations are tools for implementing interventions supported by research evidence. To ensure efficient, safe, and equal care for people with aphasia (PWA) in Sweden, it is vital that speech and language pathologists (SLPs) can work in accordance with evidence-based practice.

Aim: To investigate to which degree the Best practice recommendations for aphasia (BPRA) are already well aligned with current practice in the management of aphasia and to what extent they would require adjustment to fit the Swedish care contexts.

Methods and procedures: The BPRA were translated from English to Swedish according to steps 1 and 2 in the translation method recommended by the World Health Organization (WHO). A web-based questionnaire was used for data collection. All healthcare regions in Sweden were represented, and the study included a total of 109 SLPs. The participants' perceived knowledge and application of the recommendations and whether the recommendations can serve as a basis for national clinical guidelines were summarized quantitatively. The participants' comments on the applicability of the BPRA were analyzed with qualitative content analysis according to an established model.

Outcomes and results: Only a few participants indicated they had good knowledge of the BPRA. The responses additionally showed that the application of the BPRA varied between the participants and across clinical settings. Lacking SLP resources was stated to be the main perceived barrier for complying with the recommendations. The participants also stated that the BPRA requires adjustment to provide a partial basis for national clinical guidelines for aphasia and the need for national clinical guidelines to be adjusted to prevalent SLP resources.

Conclusions: There are challenges in following up on some of the interventions that, according to both multinational recommendations and Swedish guidelines, should be given priority in the care of PWA. The barriers that are stated to complicate Swedish SLPs’ compliance with some of the multinational recommendations are similar to the barriers posed by SLPs in other national studies on the uptake of aphasia rehabilitation recommendations. In Sweden, SLPs experience a lack of resources of various kinds to be able to fully comply with the BPRA.

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**Introduction**

Aphasia is an acquired language disorder caused by brain damage, commonly by stroke. Dejection and limited ability to interact socially are often experienced by people with aphasia (PWA) and can lead to avoidance of social contexts (Worrall & Foster, 2017). It has, for instance, been observed that persons who suffer a stroke that results in aphasia are more affected by depression and deteriorating ability to participate in social activities than persons who suffer a stroke without resulting aphasia (Koleck et al., 2017; Worrall & Foster, 2017). The World Health Organization (WHO) has emphasized that health care should be based on a holistic approach. Rehabilitation should therefore focus on the adaptation of the surrounding environment, and on other activities that increase activity and participation, in addition to efforts aimed at restoring function (Hersh, 2018; World Health Organization, 2001).

Evidence-based practice (EBP) improves the quality of care, patient safety, the outcomes of treatment, and increases the commitment to patient-centered work among health care professionals (Melnyk et al., 2017). Nevertheless, international research has identified differences between what research advocates and what interventions speech and language pathologists (SLPs) give to PWA (Foster et al., 2015; Shrubsole et al., 2018). A systematic review revealed that not all clinical guidelines for stroke management provided specific recommendations for PWA, and the researchers concluded that more aphasia-specific recommendations are needed as they can help to ensure that PWA is offered high-quality care (Rohde et al., 2013). The international organization Aphasia United initiated a project aimed at developing a consensus for multinational recommendations specifically for aphasia (Simmons-Mackie et al., 2016), and thereby address the needs identified by Rohde et al. (2013). The first phase of Aphasia United’s effort focused on research evidence and expert knowledge, and Simmons-Mackie et al. (2016) summarized evidence-based recommendations, state of the art in research on aphasia and aphasia treatment, national clinical guidelines for stroke or aphasia from different countries, and other publicly available summaries. A multi-step process was implemented to establish a consensus around the multinational recommendations and resulted in the publication of *Best practice recommendations for aphasia* (BPRA), which consisted of ten recommendations (the Top ten), each with a rated level of evidence (Simmons-Mackie et al., 2016). Thus, Aphasia United not only initiated the project, but during the workflow was intimately intertwined with the efforts that ultimately resulted in the BPRA through the working group that identified the recommendations. One purpose of the recommendations was to influence clinical work on a national level and contribute to better care for PWA.

The implementation of clinical practice guidelines is not always straightforward, and several obstacles have been identified for the transfer into the clinical practice of SLPs. For instance, a lack of knowledge regarding EBP among SLPs has been identified as a barrier. A survey conducted in Idaho found that SLPs and audiologists lacked knowledge on how to retrieve information from medical databases (Guo et al., 2008), which is essential for acquiring updated information on clinical practice. The results further indicated that a large proportion of SLPs and audiologists had limited knowledge of EBP. Trebilcock et al. (2019) investigated barriers and facilitating factors for the implementation of intensive and comprehensive aphasia services for PWA among SLPs, and found that *environmental context and resources* (factors affecting a situation/circumstance or a physical environment),
beliefs about consequences (presumed outcomes of a caring effort), professional role and identity (personal or professional characteristics and/or behaviors), skills (level of skill in operating) and knowledge (knowledge of a condition, treatment, or environment) impacted the implementation of the services. Each factor was considered to act both as a facilitator and barrier, depending on when and to what extent the factor was present. Trebilcock et al. (2019) thereby provided additional support to the conclusions drawn earlier by Stephens and Upton. (2012), that lack of time for research, lack of time for implementation, lack of access to resources, and lack of skills in accessing and understanding the research were the primary barriers preventing SLPs from complying with EBP. Aphasia implementation studies is an emerging research area, and until 2018 only six implementation studies had been published (Shrubsole et al., 2019). It is therefore important to identify models for implementation (Power et al., 2020) as well as other beneficial factors for the implementation of EBP and the successful management of aphasia by SLPs (Baker et al., 2010).

The National Board of Health and Welfare is a government agency tasked to ensure safe and equal care for patients throughout Sweden ([Stockholm]: National Board of Health and Welfare, 2020). The purpose of the Swedish national guidelines for stroke care (the stroke guidelines) is both to stimulate the use of scientifically evaluated and effective treatments and to be a basis for health priorities so that more resources are allocated to high priority care interventions than to those that have been given low priority. The stroke guidelines describe in which order interventions and management strategies should be prioritized based on the level of evidence, the severity of the condition, cost-effectiveness, and with consideration to other intervention alternatives. The implementation of the stroke guidelines in clinical practice is followed up each year, summarized, and reported, which contribute to clinical compliance. Related to the treatment of aphasia, the stroke guidelines give high priority to intensive speech and language therapy, communication partner training (CPT), and the training of compensatory techniques (National Board of Health and Welfare, 2020). According to estimates from 2018, staffing levels were insufficient, and 107 new SLPs would need to be recruited nationally to meet the requirements of the national guidelines for the management of aphasia (National Board of Health and Welfare, 2020).

While the stroke guidelines may offer important support to healthcare professionals in decisions concerning the patient (National Board of Health and Welfare, 2020), they are also aimed at politicians, officials, and managers and should primarily provide guidance in decisions at the group level on management and governance issues. Furthermore, only a few of the stroke guidelines specifically target the rehabilitation of PWA. Today, there are no specific clinical guidelines for aphasia management in Sweden. However, a national working group has begun compiling such guidelines (Lindberg & Skoghag, 2020). In light of the BPRA having been developed internationally, it is of interest to investigate to which extent these recommendations are already well aligned with current practice in the management of aphasia, and to what extent they would require adjustment to fit the Swedish care contexts.
**Materials and methods**

**Material**

The material used in this investigation consisted of a questionnaire of the implementation of the BPRA in the Swedish care context. For the purpose of conducting the questionnaire, the BPRA were translated into Swedish. Information on the level of evidence of each recommendation was, however, not included in the translated version in order to not impact on participants’ responses in the questionnaire. The translation was performed in accordance with steps 1 and 2 of the method recommended by the WHO (Beaton et al., 2000). In step 1, the authors performed individual translations and then compared the translations before agreeing on a final version. In step 2, an experienced SLP reviewed and commented on the translation for improvement. Based on the comments, a revision of the translation was made through reformulation of sentences and choice of words.

A web-based questionnaire was constructed consisting of 24 closed questions and was structured in three parts: *Working context* (5 questions), *Knowledge of the recommendations* (1 question), and *Applicability of the recommendations* (17 questions); see a translated version in Appendix. The survey questions were based on questions used in other studies aimed at examining the experiences, working methods, or knowledge of professional SLPs in the speech and language pathology field (Chang et al., 2018; Johansson et al., 2011; Schwartz & Drager, 2008).

The translated version of the BPRA was presented in the second part of the survey. Respondents who indicated that they did not have good knowledge of the BPRA were still asked in the subsequent questions whether they applied each of the ten recommendations. The survey questions about the applicability of the recommendations also listed what the recommendation was in each question. There was a comment field for each individual question and recommendation in the *Applicability of the recommendations* section of the survey. The free form comments provided by the participants formed the basis for a qualitative analysis.

**Recruitment of participants**

SLPs working in private, municipal, regional, and/or state care in Sweden were contacted via professional web-based forums and through contacts. The SLPs were asked to participate if they worked with PWA in the acute, subacute, or chronic rehabilitation phase in inpatient or outpatient care. There was no requirement for participants to work full time with the patient group. In Sweden, there is no national network for SLPs who work with PWA. For that reason, snowball sampling (Bryman & Bell, 2005) was used for recruitment. As a result, 1 SLP clinic, 48 SLPs, 6 unit managers, and 5 study administrators were contacted by email, and 6 SLP clinics were contacted by telephone. The questionnaire was also distributed via Facebook groups (Logopedgruppen och Umeås Logopeder) and through a post on the Speech and Language Pathologist Forum under subforum “Neuro”.
**Data collection**

The questionnaire was distributed with Microsoft Forms™, a tool for creating web-based questionnaires. Information letters to the participants were attached to a link when the questionnaire was distributed. In addition, a shortened version of the information letter was included on the first page of the questionnaire to introduce information about the study. The questionnaire data collection period was from February 17th to March 16th 2020, and reminders were sent out by mail and through all recruitment channels. On average, the participants completed the questionnaire in 25:33 minutes.

**Internal loss**

Five participants failed to indicate their workplace (Q3), and one participant did not specify in what phase of rehabilitation care he/she worked in the management of patients with aphasia (Q4). In addition, two comments about whether the BPRA can serve as a basis for national clinical guidelines were excluded because of irrelevance. The internal loss is considered here not to have significantly impacted the results.

**Data analysis**

Data from the questionnaire’s closed-ended questions were analyzed in terms of the participants’ knowledge, the application of the recommendations, and whether the recommendations can serve as a basis for Swedish national clinical guidelines for aphasia. The quantitative data are presented with descriptive statistics.

The participants’ comments were analyzed with qualitative content analysis in accordance with the procedure presented by Graneheim and Lundman (2004). The first two authors analyzed the answers together and identified meaning-bearing units. The units were rewritten into shorter clauses (condensed) that summarized the statement without altering the content. The condensed units were assigned codes. The authors reviewed the units twice to ensure that they were assigned the correct code. The codes were then categorized into categories and themes. To validate the analysis, the last author independently conducted a second analysis of the qualitative material using the same analysis procedure. The minor differences between the two analyses were discussed, and a consensus was reached.

**Results**

**Description of the participants**

In total, 111 Swedish SLPs completed the questionnaire. All consented to participate. Two were excluded; one because of not meeting PWA, and the other because of not responding to the question about knowledge about the BPRA. The 109 remaining participants are described in detail in Table 1.

**The degree to which the BPRA were perceived to be already aligned with current practice**

Less than half (41%) of the participants were fully familiar (14%) or had a high degree of familiarity (27%) with the BPRA; 35% had some knowledge, and 24% were not at all familiar with the BPRA.
The recommendations 5A to 5D were the ones that most participants said they regularly applied in their practice (See Figure 1, the response “Always apply”). Recommendation 3 (information about aphasia and treatment), 2 (assessment beyond screening), and 7 (inclusion of significant others) were also often applied if the alternatives “always apply” and “apply to a high degree” are summed. The recommendations number 9 (education and training of health and social care providers), 6 (communication partner training), and 7b (teaching families to communicate with the person with aphasia) were the ones reported to be the least applied.

The degree to which the BPRA require adjustment to fit the Swedish care context
A majority of participants (81%) agreed that BPRA is a good basis for national clinical guidelines. The remaining 19% viewed the BPRA to be only partly (10%) or not at all (9%) suitable as a basis for national clinical guidelines.

According to the comments (n = 26) the participants saw the BPRA as providing a useful basis on which national clinical guidelines for the management of aphasia

### Table 1. Description of the participants.

| Number of participants (n) |
|----------------------------|
| Total                      | 109 |
| Years of experience<sup>c</sup>  |
| 0–2                        | 23  |
| 3–5                        | 24  |
| 6–10                       | 25  |
| 11–20                      | 29  |
| >20                        | 8   |
| Region                     |
| Northern Sweden            | 19  |
| Central Sweden             | 21  |
| Stockholm (capital)        | 23  |
| South-eastern Sweden       | 12  |
| South-western Sweden       | 18  |
| Southern Sweden<sup>d</sup> | 15  |
| Rehabilitation phase<sup>e</sup>  |
| Acute phase                | 24  |
| Subacute rehabilitation phase | 26  |
| Chronic rehabilitation phase | 18  |
| Acute to chronic phase     | 40  |
| Work context               |
| Regional care              | 91  |
| Private care               | 9   |
| Municipal care             | 1   |
| State care                 | 1   |
| State and private care     | 1   |
| Regional and municipal care| 1   |
| Number of PWA<sup>a</sup> that the SLP<sup>b</sup> meet per week |
| 1–3                        | 45  |
| 4–6                        | 47  |
| 7–10                       | 11  |
| 11–15                      | 4   |
| >15                        | 1   |

<sup>a</sup>People with aphasia.
<sup>b</sup>Speech and language pathologist.
<sup>c</sup>Years of experience, number of years the participant has worked with people with aphasia.
<sup>d</sup>The region of Southern Sweden includes in this compilation the entire Region Halland.
<sup>e</sup>Rehabilitation phase, according to the classification used by Johansson et al. (2011).
could be built. The national guidelines for the management of aphasia should, however, be more specific and concrete in their formulations and more extensive compared to the BPRA. Some participants further commented that the aphasia guidelines should align well with the stroke guidelines and consider acute and rehabilitation phase service separately. In addition, there were a few comments about the need to adjust the clinical guidelines to fit the available SLP resources. One participant did not at all agree that the BPRA would provide a good basis for national guidelines and considered several of the recommendations to be wrong or inappropriate.

Comments on the perceived applicability of the BPRA
The participants provided 397 comments regarding the applicability of the recommendations. The number of comments varied between 11 to 41 for each one of the recommendations (M = 23.4, SD = 10.0). Some of the comments were very extensive and resulted in several meaning units in the analysis.

The qualitative analysis of the comments resulted in five identified themes: Aspects related to the health care organization; Aspects related to the workplace; Aspects related to the SLPs; Aspects related to the patients or their families; and Aspects related to other professionals. All themes, categories, and subcategories are presented in Table 2 in addition to typical quotations.

The theme Aspects related to the health care organization comprised three categories: Not enough SLP resources; No SLP at all; and The priorities and routines of the health care organization. Most comments were sorted into the category of Not enough SLP resources, which was further divided into six subcategories (Table 2). The lacking SLP resources were...
perceived to result in **strict prioritizations, restricted possibility or extent of assessments and interventions; unequal rehabilitation due to interventions according to workload; restricted possibility to follow guidelines and reduced implementation of new knowledge**, and in the end, they **cause a worse rehabilitation outcome**. The prioritizations were both on a patient population level (e.g., patients with progressive aphasia were not seen) or on an individual level where only patients (and/or relatives) most in need of rehabilitation received any interventions. In addition, there was also a prioritization of what kinds of interventions were offered. Time-demanding interventions, such as intensive treatment (e.g., Constraint Induced Aphasia Therapy) or CPT were often not provided because of limited SLP resources. Furthermore, SLP resources were not only limited in terms of who was receiving SLP therapy, but also in the choice, duration, and intensity of therapy, or what assessments were conducted. The limitations concerned patients and their relatives but also, for instance, a lack of health care staff with the required training. The limited SLP resources were also reported to result in specific kinds of therapies only being provided, at best, in later rehabilitation stages, although the participants admitted that CPT would, for instance, have been useful at an earlier stage. A third consequence of the limited SLP resources was that the SLP services provided were perceived to differ according to workload and to result in unequal health care. Several participants commented that both the stroke guidelines of the National Board of Health and Welfare as well as the BPRA, were impossible to follow as long as there were not enough SLPs at the workplace. In accordance, it was perceived impossible by many participants to learn about and implement new treatments. Even in cases where appropriate training had been received, the participants stated that there might be too little time available to incorporate the learned knowledge and skills into clinical practice. In the end, the limited SLP resources were believed to result in a worse rehabilitation outcome for the patients with aphasia and their relatives.

Some participants reported that in some health care units caring for PWA, there were **no SLP at all**. At best, there was a consulting SLP who was not part of the rehabilitation team and who could only cover the most basic services with the risk of missing patients. Other participants reported that an SLP was not available at health care wards so that assessment and treatment requirements had to be fulfilled by other health care staff. However, most comments related to available SLP resources concerned the situation in municipality-driven or primary care. These care situations were perceived as frustrating by the participants as there would be no SLP available in these contexts to take over the responsibility to provide or follow up SLP services near the patients’ home environment. The lack of SLPs in municipal care, including nursing homes, also made it difficult to provide training on how to best communicate with the person with aphasia to clinical staff.

The third category of this theme concerned the **priorities and routines of the health care organization**. Active care structures may have predetermined restrictions about what patient groups to care for (e.g., only stroke patients), what SLP services should be delivered, duration of treatment, or other restrictions that made certain SLP therapies impossible to offer (e.g., group therapy) and thus made it impossible to follow recommended guidelines.

The **Aspects related to the workplace** theme comprised two categories: **Access to information- and assessment materials** and **Coordination with other professions**. Some
Table 2. Comments on the perceived applicability of the best practice recommendations for aphasia in a Swedish healthcare context.

| Theme | Category | Subcategory | Example of quotations |
|-------|----------|-------------|-----------------------|
| Aspects related to the healthcare organization | Not enough SLP resources | Strict prioritizations | We have excluded for instance, aphasia connected with dementia due to lack of resources. (BPRA 5 c) Presently, the time available is too limited to give it focus. It [the treatment] will be offered where there is a clear need. (BPRA 7a) The lack of time available and the need to prioritize prohibits us from offering intensive treatments, despite the evidence of it being effective. (BPRA 5) |
| | Restricted possibility or extent of assessments and interventions | | We only have time to do screenings and as good assessments of type of communicative impairment as we can. (BPRA 2) We involve the patient’s relatives as often as possible, but the involvement requires that the relative visits coincides with the SLP being available. In practice, this occurs too seldom. (BPRA 7) Not within our clinic, but there are more time available for doing that later in the health care chain (BPRA 5) |
| | | | Unfortunately, the lack of resources makes intensive treatment not available, but [I] aim to provide it when possible. (BPRA 5) It is offered when time allows or when there is a need for it. (BPRA 6) |
| | | Restricted possibility to follow guidelines | Treatment of language impairment does not however meet the requirements of the National Board of Health and Welfare in terms of intensity. (BPRA 5a) The resources that are required to meet the recommendations are lacking. (BPRA all) |
| | | Reduced implementation of new knowledge | One of my colleagues has received the required training but has not been able to apply it in clinical practice due to lack of resources. (BPRA 6) The knowledge exists but the resources are too scarce to meet the requirements. (BPRA 5d) |
| | | Causes worse rehabilitation outcome | With more resources and more opportunities to meet more persons in the patients’ immediate surroundings, the rehabilitation would become so much better. (BPRA all) |
| | No SLP at all | Access to SLP, but only as a consultant | We don’t know to what extent we receive referrals from departments where there is no SLP continuously on site. (BPRA all) |

(Continued)
| Theme                                      | Category                                                                 | Subcategory                                                                 | Example of quotations                                                                                                                                                                                                 |
|-------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No SLP at important health care units     |                                                                           |                                                                              | The patient’s contact with an SLP is ended if the patient is transferred to a municipal care facility. Even patients with a brain tumor, who are attached to the oncology clinic, lack access to an SLP. (BPRA 4) |
|                                           |                                                                          |                                                                              | A psychologist makes [the language] assessment when assessing cognition. (BPRA 2)                                                                                                                                        |
| No SLP in primary health care or community|                                                                           |                                                                              | There is no time. You wish that there would be an SLP within primary or municipal care who would be able to take over treatment there. (BPRA 7b)                                                                         |
|                                           | The priorities and routines of the health care organization               | Services only to a specific patient group                                    | The clinic only takes patients with acquired brain injury. (BPRA 5 c)                                                                                                                                                  |
|                                           |                                                                          | Type of SLP services is decided by the organization                        | I work only with intensive treatment in private practice. (BPRA 5)                                                                                                                                                     |
|                                           |                                                                          | The health care program decides duration of services and thereby the SLP services that can be delivered | With the reduced time in inpatient care it is difficult to find the time to do more than a screening. (BPRA 2)                                                                                                           |
|                                           |                                                                          | Organizational decisions restrict certain kinds of services                | The way we do treatment is guided by organisational restrictions. (BPRA 5)                                                                                                                                              |
| Aspects related to the workplace           | Access to information- and assessment materials                          | Necessary information- and assessment materials are lacking                 | Difficult sometimes with relevant material due to the fact that there is not so much material available. (BPRA 8)                                                                                                       |
|                                           |                                                                          |                                                                              | There is no national evidence-based screening test. (BPRA 1)                                                                                                                                                            |
|                                           |                                                                          | Existing materials need to be improved or updated                           | The printed information that should be easy to read is not very easy to read. (BPRA 10)                                                                                                                                  |
|                                           |                                                                          |                                                                              | The patients may become too tired and are required elsewhere for assessments and other treatments while they are inpatients. (BPRA 5).                                                                                   |
| Coordination with other professions       |                                                                          |                                                                              | Unnecessarily resource-intensive. (BPRA 1)                                                                                                                                                                               |
| Aspects related to the SLPs               | Attitudes and opinions of the SLP                                        |                                                                              | I do not have training in communication partner training. (BPRA 1)                                                                                                                                                     |
|                                           | Lack of knowledge                                                       |                                                                              | [It is] somewhat difficult to imagine what cultural adaptation means in concrete terms. (BPRA 8)                                                                                                                       |

(Continued)
| Theme | Category | Subcategory | Example of quotations |
|-------|----------|-------------|-----------------------|
| Aspects related to the patients or their significant others | Aspects related to the person with aphasia that hampers their engagement in rehabilitation | Limitation of the patient (lack of stamina, motivation, or other disabilities) | Yes, but I also take into account the person’s level of insight, cognitive ability and motivation. It can sometimes be about giving indirect treatment in the form of information and advice to relatives or staff. (BPRA 5c) |
| | | Living a far distance from rehabilitation clinic | But we have problems not only with limited resources but also that patients do not have the strength for intensive therapy or that patients do not have the opportunity to go to the SLP clinic several times a week. (BPRA 5d) |
| | | Foreign mother tongue | There are great difficulties in meeting the needs of multilingual patients for rehabilitation in their mother tongue. (BPRA 8) |
| | Aspects related to significant others that hampers involvement in rehabilitation | Difficult to motivate significant others | We offer both CPT and training for relatives – but have difficulty finding enough interested people. (BPRA 7a) |
| | | Limited possibilities to engage in rehabilitation | To the degree that they themselves want and can attend. (BPRA 7) |
| | | Non-existing, small, or varying informal network | Necessary [to include significant others], but difficult when the patient has a small network or may be completely handed over to personal assistants who tend to be replaced frequently. (BPRA 7) |
| | Cultural beliefs may hamper “active” rehabilitation | | In some cultures “active” rehabilitation is a foreign concept and when they attempt to help the patient as much as possible, s/he instead becomes passive. Sometimes it can also be believed to be “God’s will” or you expect a medicine that cures. (BPRA 8) |
| | Aspects related to other professionals | Lack of knowledge about aphasia and communication | [I] work in a neuro-care team where the new people in the team have not yet had time to receive education. (BPRA all) |
| | | Other professions are not educated about aphasia and communication | We have too large a turnover of staff, which lowers the level of knowledge. (BPRA 9) |
| | | High staff turnover reduces the knowledge level among health care staff | I do not perform screenings. I find out from other healthcare professionals if a person has come in with aphasia symptoms. (BPR 1) |
| | | Dependent on other professions to identify the presence of aphasia | Whether the patient can communicate or not is often not something that the doctors care about, they discharge patients from the wards, although we often point out that the patient needs more SLP support. (BPR 4) |
| Other professions’ views of SLP services | | | |
participants had access to relevant information- and assessment materials, while others reported they lacked aphasia-friendly written information, culturally adapted information, appropriate assessment materials, and so on. Some SLPs reported they did have information brochures, but they did not perceive these as aphasia-friendly or up to date. Some participants reported being able to individually adapt the information material, while others reported not having time available to make the required adaptations. Another aspect that reduced SLP services was difficulties in coordinating their own services with other professions’ due to their restricted working time at the health care unit.

The theme Aspects related to the SLPs comprised two categories: Attitudes and opinions of the SLP and Lack of knowledge. Some participants expressed their personal opinions about the need for certain services, such as screening for aphasia (“unnecessary”) or providing CPT in the acute phase (“too difficult”). The participants also provided comments related to not having adequate training or knowledge in specific therapy methods such as CPT, how to culturally adapt SLP services, and how often treatment would have to be provided in order to be considered “intensive therapy”.

The theme Aspects related to the patients or their significant others comprised two categories: Aspects related to the person with aphasia that hampers their engagement in rehabilitation; and Aspects related to significant others that hampers their involvement in rehabilitation. The participants provided several comments about the PWA not being able to engage in all kinds of SLP rehabilitation services because of fatigue, lacking motivation, being in a bad overall health condition, or having other disabilities, such as cognitive impairments, in addition to aphasia. The lack of ability to participate in the treatment was a particularly prominent barrier for participation in relation to intensive therapy forms. Long travels between home and the rehabilitation clinic also was a barrier for taking part in rehabilitation services. Several participants also exemplified barriers in relation to multi-lingual patients by situations where the patient may be a recent learner of Swedish in which case SLP services would possibly have to be given with the help of an interpreter. In particular, it was perceived by the participants as difficult to make cultural adaptations of screening and other assessment materials. Finally, patients were sometimes offered SLP services in accordance with the BPRRA but chose not to take part because of other preferred activities.

Regarding the involvement of relatives, the participants provided many comments related to difficulties in motivating them to come to information events about aphasia and communication or to take part in, for instance, CPT. It was, however, acknowledged by the participants that relatives did not always have the possibility to be involved in rehabilitation. Other difficulties mentioned were patients with small or non-existing social networks or who were dependent on varying personal assistants. Another barrier mentioned were relatives from other cultures having views on illness and rehabilitation and expectations of health care services that are not aligned with the goals of the rehabilitation team.

The final theme, Aspects related to other professionals, comprised two categories: Lack of knowledge about aphasia and communication and Other professions’ views of Speech-language interventions. All team members should know about aphasia and facilitating strategies in communication with PWA. However, sometimes the non-SLP team members had not had the opportunity to learn about these strategies, or the staff turnover made it difficult to retain knowledge about communication strategies. Often, the SLPs did not
perform any screening procedure themselves (because of lacking resources or routines at the health care unit), which resulted in a dependency of other professionals to observe communication difficulties in the patients. If the responsibility of recognizing the presence of aphasia was transferred to health care professionals not specialized in aphasia, the participants saw a risk of patients in need of an SLP assessment not being identified. Another perceived risk was that the aphasia would not be acknowledged as a significant problem. Some participants reported about the failure of other professionals to prioritize communication rehabilitation or that the communicative disabilities were ignored.

**Discussion**

The aim of the study was to investigate to which extent the BPRA are already well aligned with current practice in the management of aphasia, and to what extent they would require adjustment to fit the Swedish care contexts. The study included the responses of 109 participants with regards to their knowledge of BPRA, the application of the recommendations, and whether the recommendations can serve as a basis of national clinical guidelines for aphasia. The results indicated that only a limited number of participants had good knowledge of BPRA and that the perceived applicability of BPRA varied. Several participants perceived a lack of resources as a barrier to the implementation of BPRA, but that a national adaptation of BPRA could serve as part of the basis of national clinical guidelines for aphasia.

A large proportion of the participants indicated that they had some knowledge of BPRA, but only a few stated that they had good knowledge about BPRA. These results are similar to the findings presented by Guo et al. (2008) on limited knowledge among SLPs of how to search for and retrieve information from medical databases and suggest that SLPs in Sweden may have limited knowledge of EBP for the management of PWA. Since BPRA is now actualized in the Swedish care context, the recommendations could contribute to increased dissemination of the EBP as brought together in the BPRA amongst Swedish SLPs. It can be assumed that the lack of knowledge of guidelines and recommendations has a strong effect on the degree of application. It is pertinent that SLPs have knowledge of BPRA to increase the application of evidence-based interventions, and thereby improve the care for PWA at the national organization level (Simmons-Mackie et al., 2016).

A majority of the participants fully or to a high degree agreed that BPRA can serve as part of the basis for Swedish national clinical guidelines for aphasia. However, the participants noted that the recommendations need to be modified, extended and be clarified in order to function as clinical guidelines. Models for this adaptation exist internationally. The Australian Aphasia Rehabilitation Pathway (AARP) is a web-based tool for SLPs who meet PWA, adapted to the Australian care context (Thomas et al., 2014). The tool includes a compilation of research evidence and recommendations for the different phases throughout the continuum of care (Thomas et al., 2014). Similar to AARP, Swedish national clinical guidelines for aphasia need to be formulated from Swedish care conditions) and therefore parts of the recommendations may need to be adapted culturally. Based on the participants’ comments, the content of BPRA for aphasia can, with adaptations, serve as part of the basis for national clinical guidelines for aphasia.

The lack of resources, not least the present deficiency in SLP staffing in care units, is stated as a barrier for implementation of some of the recommendations. Recurrent input
from the participants indicates that there are not enough SLP positions, and the shortage of SLPs entails difficulties in offering interventions advocated by research. The Swedish national health care system is funded from state and regional tax systems, with the aim of providing equivalent health care independent of where it is given. The region or private entity is however free to distribute funds according to the perceived or projected needs of the population, and the availability of SLP resources is, therefore, the result of a local administrative decision. The shortage of SLPs within various fields is seen not only in Sweden but also internationally (Bureau of Labour Statistics, 2021; Edgar & Rosa-Lugo, 2007; Joffe & Pring, 2008; Squires, 2013). In some areas in the United States, the United Kingdom, and Canada, assistants have been hired to expand the care services provided by qualified SLPs, which can enable more efficient handling of cases and increased access to speech therapy services for patients (Lubinski & Hudson, 2012). O’Brien et al. (2013) conclude that Speech Pathology Australia, that nation’s leading organization for speech and language pathology, supports the implementation of an assistant workforce, but mixed perceptions regarding the implementation were to be found among professional SLPs. Squires (2013) emphasizes that although there is a demonstrated shortage of SLPs, limited research literature that discusses this challenge is to be found, which indicates that there is a need for further research and dialogue related to this issue.

As the stroke guidelines should guide priorities for stroke care in general and not only for aphasia management, they address limited specific treatment methods for PWA, and low availability of evidence-based interventions might impair SLPs ability to work in accordance with EBP. Nevertheless, priority treatments such as intensive speech and language therapy and CPT that should be offered according to the stroke guidelines (National Board of Health and Welfare, 2020) are applied only to a small degree by the participants. The participants indicate a lack of resources and the patient’s ability to take part in intensive speech and language therapy to be barriers to the implementation of intensive therapy. Similar results have been demonstrated by Gunning et al. (2016) who reported that SLPs considered high-intensity treatment more challenging to deliver than the standard treatment, and specified barriers for implementation which included patient fatigue, patient personal factors, and locating resources. The fact that Swedish SLPs indicate that a lack of resources is one reason why some recommendations are applied to a small degree may indicate that the increase of SLP services that the National Board of Health and Welfare have advocated in 2018 (National Board of Health and Welfare, 2020) has not been filled.

Some participants indicated that they offer formal education and CPT to relatives, but that relatives decline education. This indication is similar to the results presented by Johansson et al. (2012), which demonstrated that SLPs sometimes perceived that relatives expressed limited interest in being involved in aphasia rehabilitation services and that SLPs were not fully satisfied with the extent to which they succeeded in motivating relatives to use conversational strategies. Johansson et al. (2012) also highlighted that the most prominent barriers for SLPs to involve relatives, especially in CPT, were stated to be limited time available, the experience of insufficient knowledge and skills in involving, assessing and educating communication partners, as well as unclear or insufficient work task instructions. These results indicate that there have been barriers in the Swedish care context to involve relatives in CPT and that these challenges still exist. It could be assumed that increased resources for SLPs in the form of time, education and further training, and opportunities for increased flexibility in terms of educating initiatives could contribute to an increased involvement of relatives in CPT.
**Study limitations**

The current study used questionnaire methodology because it is an effective approach to reach many participants and to reach practitioners across as many care contexts as possible, nationally. One risk associated with questionnaires is, however, that since the participants are not able to ask follow-up questions, the responses may be influenced by misinterpretations of the questions (Ejlertsson, 2005). Further, the free-text responses were analyzed qualitatively, which is always a subjective process (Graneheim & Lundman, 2004). Some measures were however implemented in the current study to mitigate this effect. Before the questionnaire was sent out, a pilot study was conducted with an SLP who actively engaged in research to ensure that the questions were clearly presented and not ambiguous. The participants’ comments were analyzed jointly by two researchers and then re-analyzed by a third researcher to enhance the rigor of the analysis.

The number of participants in the present study was smaller compared with a previous Swedish study that examined 208 SLPs’ treatment of PWA and their families (Johansson et al., 2011). Since there is no network for SLPs working with PWA in Sweden and thus data on the number of SLPs working with PWA are missing, it is difficult to assess whether the sample is representative of the population. We do, however, note that all major regions and care institutions were included in the sample analyzed.

**Conclusions**

The participants’ estimates and comments show that low-intensity speech and language therapy and communication support are therapy methods applied by SLPs in the Swedish care context. However, it seems that there are challenges in following up on some of the recommendations that, according to the National Board of Health and Welfare (2020), should be given priority in the care of PWA. The challenges that are stated to complicate Swedish SLPs compliance with BPRA are similar to the barriers that have been identified in other national studies on the uptake of aphasia rehabilitation recommendations (Klippi et al., 2012; Rose et al., 2013; Young et al., 2018). Thus, the results from this study provide further support to the conclusion that SLPs internationally experience a lack of sufficient resources of various kinds to be able to fully comply with EBP, and that aspects related to the clinical setting and the patient group also affect the degree of implementation.

**Disclosure statement**

No potential conflict of interest was reported by the author(s).

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