Informed consent and deafness in South Africa: Guidelines for clinicians and researchers

C Penn, PhD; V de Andrade, MA, PhD

Department of Speech Pathology and Audiology, School of Human and Community Development, Faculty of Humanities, University of the Witwatersrand, Johannesburg, South Africa

Corresponding author: C Penn (Claire.Penn@wits.ac.za)

Persons with severe to profound hearing loss are potentially vulnerable participants in research trials. Standard enrolment practices are likely to threaten or limit the process of informed consent. Misconceptions held by the hearing community about hearing loss and the impact of amplification of hearing, as well as on the nature of signed language, may jeopardise the process. This is particularly the case in the complex sociopolitical context of South Africa, which has significantly influenced the educational and linguistic status of deaf persons. This paper describes factors of importance, and suggests a number of guidelines for researchers using deaf participants. The paper will highlight some relevant dimensions of deafness to take into account, and the impact of socioeconomic context on this issue. Three case examples will be used to illustrate the complexities of the issues.

S Afr J Bioethics Law 2017;10(2):58-61. DOI:10.7196/SAJBL.2017.v10i2.541

There is a significant history of exploitation of and unethical experimentation with deaf people across the centuries – a factor which Harlan Lane and others have described, and which has led to a strong deaf-rights movement and acute concern with ethical practices. In the unique context of South Africa (SA), with its particular illness profile and recognised historical, social and educational inequities, deaf individuals are rendered especially vulnerable. While it might be argued that most researchers working with deaf people will already have an understanding of these factors, it cannot be assumed, especially in biomedical research, that the researchers are familiar with the complexity of argument. Many myths and assumptions continue to exist in the field of deafness.

This article addresses some important variables to consider when undertaking research with deaf individuals, provides some case examples to illustrate issues of informed consent and suggests some guidelines to ensure proper informed consent for this vulnerable group.

Factors of relevance

Severity and type of hearing loss

Hearing loss is measured on an audiogram, and typically, severe to profound bilateral hearing loss is associated with marked difficulties with the acquisition of spoken (or oral) language. Despite huge advances in technology, including high-powered hearing aids and cochlear implantation, children with a congenital severe to profound hearing loss may have minimum benefit from amplification, and will require specialised and regular input and education to acquire oral language skills and literacy. The success of such amplification and rehabilitation attempts will depend on the age at diagnosis and access to suitable rehabilitation. In SA, limited resources, awareness and access, and inadequate follow-up, account for delayed diagnosis and intervention.

Age at acquisition of hearing loss makes a substantial difference. The person who has acquired oral language before becoming deaf, and who had normal hearing during the critical language-learning years of childhood, will retain such oral language skills in the event of severe or profound hearing loss. A typical cause of such profound acquired deafness is this country is meningitis. Another alarming and currently prevalent cause is ototoxicity. Tuberculosis (TB) patients on treatment are at high risk for sudden and profound hearing loss as a consequence of the ototoxic properties of some of the lifesaving drugs they take. While such individuals with acquired hearing loss may no longer be able to hear, reading and writing will be unaffected, and lip-reading skills may assist their understanding of others. Of course, the profound trauma of permanent and sudden hearing loss, and the social isolation that may ensue, will render such individuals further vulnerable. Furthermore, given the current epidemiology of TB, it is likely that some of these individuals will come from communities in which literacy may be limited, because of lack of educational opportunity.

‘Deafness’ v. deafness

A distinction is widely recognised between ‘Deafness’ as a cultural category and deafness as a biomedical category. The use of the lower-case ‘deaf’ refers to people who may have audiological deafness as described by their audiometric results and their measurable deafness. They tend to use hearing aids to support their use of spoken language. The upper-case ‘Deaf’ refers to the cultural and social categorisation of people who identify with Deaf culture. Deaf (in the upper-case sense) people do not consider themselves disabled; instead, they consider themselves part of a minority grouping whose members share similar beliefs and a ‘naturally occurring human identity … manifest through … norms of behaviours, cultural perspective, conventions and shared histories’.
to transcend other identities, such as ethnicity, because ‘common experiences seem to have shaped their Deaf identity, in the sense that alienation from hearing people has led to solidarity among Deaf people (even from different ethnicities).

The implications of this distinction are important for a researcher using deaf participants. We can assume neither deafness nor Deafness, until we ask. The presence of a hearing aid and the use of sign language provide some clues, but individuals often consider themselves to be both, depending on the people they are communicating with. These identities will have a significant impact on the process of informed consent.

**Education and literacy**

Research evidence suggests that internationally, the literacy level of deaf school-leavers is about Grade 5. Many reasons for this exist, including the fact that there is often a mismatch between the needs of the child and the educational programmes offered.

Although plain and simple language is the hallmark of all good written informed consent, those compiling a written informed-consent sheet for deaf persons should be aware of the difficulties with literacy faced by most deaf persons, and the possible interference of another language (sign language) on the understanding of grammatical devices such as word order or the passive construction. It is acknowledged that signed language is ‘not grammatically structured in a linear subject-verb-object structure. Rather it is a topic-comment language in which inflection is produced through facial expression, visual orientation, movement and spatial location.

The researcher should therefore be careful not to assume full understanding of written text without carefully checking. To this end, it is also advisable to prepare consent forms that have been submitted to a readability analysis to check the reading age and grade level at which the consent forms have been written.

This is obviously compounded by the fact that in SA, the language of schooling is usually different from the oral language of the home. All specialised schooling for the deaf in SA takes place in English and Afrikaans, and the mismatch between home and school language exposure poses another obstacle to age-appropriate language development. The multilingualism policy has created a complex and underlying syntactic unity.

**Anonymity and confidentiality considerations**

Several threats to anonymity and confidentiality exist when working with deaf individuals in research (and indeed in any clinical interactions between deaf persons and healthcare professionals).

The first of these links to the role of video-recording. The advent of the videotape has enabled a full appreciation and documentation of the complexities of sign language. Because sign language is temporally fleeting, video-recording is often the only reliable way to collect and store data from Deaf people and to check the reliability of the process of informed consent. This presents additional challenges in the process of gaining informed consent, as currently in the hearing world, significant limitations are placed on research using video-taping with human participants because of issues of confidentiality.

The way that the data are presented in publications is also an important issue. Janse van Vuuren has suggested that ‘researchers in sign language are faced with a challenge which is unavoidable in the context of a visual-gestural language: participants are always identifiable because non-manual features (including facial expressions) form an important part of the linguistic structure of the language. Often, still-frames of digitally recorded signed texts are used in research publications to show these features. The implication of this is that participants have the right to know exactly how the digital texts will be utilised:

**Interpreting quality and confidentiality**

The use of a sign-language interpreter is strongly recommended when recruiting Deaf persons in research studies, especially if sign language is used as his/her main medium of communication with family and peers. At present, because of discrepancies between policy and practice, fewer than 100 SASL interpreters are officially registered in SA. This poor provision and regulation of interpreting services results in inadequate services. Nowhere was this more vividly demonstrated than in the fake sign-language interpreter debacle of Nelson Mandela’s funeral.

Another challenge exists around issues of confidentiality when working with the Deaf community, when a sign-language interpreter is used in an informed-consent process. Typically, the Deaf community is a small community with defined familial, professional and social

**Sign language**

Sign language is the natural language of the deaf community, and like spoken language, is complex, grammatical and nuanced. Specifically for Deaf people, the use of sign language is a hallmark of their identification with Deaf culture and ethnicity, and for significant numbers of Deaf people, it functions as their primary vernacular language, while people who are deaf may use hearing amplification devices and spoken language or signed language. There is a natural sign language in SA, South African Sign Language (SASL), that is used by the Deaf in communicative interactions and that is characterised by extensive lexical variation, related to regional and educational background, but underlying syntactic unity.

Although it is not an official language in SA, there have been calls to recognise SASL as an official language, and, in the Constitution’s recognition of the country’s eleven official languages, it also makes provision for the Pan South African Language Board to promote and develop SASL. SASL has also recently been recognised as an additional language for teaching at schools. Despite such enabling legislation based on the Constitution, SASL remains, by and large, a stigmatised language variety in the SA context, and there remain many misconceptions about it even amongst linguists, health professionals, educators and policy makers.

Another important factor in understanding challenges to informed consent is the fact that there are regional and dialectal variations in sign language. Deaf people in SA continue to use a number of sign dialects. Because of a history of segregated education systems, a wide variety of sign-language dialects exists, determined not only by region and ethnicity but by the educational background of the Deaf individual, which often do not match the dialectal version of the interpreter appointed by the researcher.

Although plain and simple language is the hallmark of all good written informed consent, those compiling a written informed-consent sheet for deaf persons should be aware of the difficulties with literacy faced by most deaf persons, and the possible interference of another language (sign language) on the understanding of grammatical devices such as word order or the passive construction. It is acknowledged that signed language is ‘not grammatically structured in a linear subject-verb-object structure. Rather it is a topic-comment language in which inflection is produced through facial expression, visual orientation, movement and spatial location.

The researcher should therefore be careful not to assume full understanding of written text without carefully checking. To this end, it is also advisable to prepare consent forms that have been submitted to a readability analysis to check the reading age and grade level at which the consent forms have been written.

This is obviously compounded by the fact that in SA, the language of schooling is usually different from the oral language of the home. All specialised schooling for the deaf in SA takes place in English and Afrikaans, and the mismatch between home and school language exposure poses another obstacle to age-appropriate language development. The multilingualism policy has created a complex and underlying syntactic unity.

Several threats to anonymity and confidentiality exist when working with deaf individuals in research (and indeed in any clinical interactions between deaf persons and healthcare professionals).

The first of these links to the role of video-recording. The advent of the videotape has enabled a full appreciation and documentation of the complexities of sign language. Because sign language is temporally fleeting, video-recording is often the only reliable way to collect and store data from Deaf people and to check the reliability of the process of informed consent. This presents additional challenges in the process of gaining informed consent, as currently in the hearing world, significant limitations are placed on research using video-taping with human participants because of issues of confidentiality.

The way that the data are presented in publications is also an important issue. Janse van Vuuren has suggested that ‘researchers in sign language are faced with a challenge which is unavoidable in the context of a visual-gestural language: participants are always identifiable because non-manual features (including facial expressions) form an important part of the linguistic structure of the language. Often, still-frames of digitally recorded signed texts are used in research publications to show these features. The implication of this is that participants have the right to know exactly how the digital texts will be utilised:

The use of a sign-language interpreter is strongly recommended when recruiting Deaf persons in research studies, especially if sign language is used as his/her main medium of communication with family and peers. At present, because of discrepancies between policy and practice, fewer than 100 SASL interpreters are officially registered in SA. This poor provision and regulation of interpreting services results in inadequate services. Nowhere was this more vividly demonstrated than in the fake sign-language interpreter debacle of Nelson Mandela’s funeral.

Another challenge exists around issues of confidentiality when working with the Deaf community, when a sign-language interpreter is used in an informed-consent process. Typically, the Deaf community is a small community with defined familial, professional and social
networks. This implies the need to explain and reinforces the need to protect the participants’ rights to anonymity and confidentiality. In the absence of a formally trained interpreter, while it might be possible to deploy persons in the participant’s environment such as family members, there are ethical problems with this choice, such as the risk of coercion, and this suggests the need for some checking of the integrity of the process.

As with any third party in research-project selection, proper briefing and monitoring of the interpreter are important. The person selected should be regionally, educationally and dialectically matched to participants to ensure an efficient process. Furthermore, where a sign-language interpreter is deployed, it will be difficult for the hearing researchers to monitor the effectiveness and accuracy of the process (as indeed it is for hearing persons in an interpreter-mediated oral-language informed-consent session in a multilingual context). This implies the need for some checks and balances around the validity of the procedure (see for example case study 2 in Table 1).

Because of the visual nature of sign language, ethically, the venues chosen for conducting the interviews need careful consideration to ensure confidentiality. Similarly, good lighting is required in the data-collection setting to ensure proper access to signs and facial expressions for research participants.

### Distress-protocol considerations

Because of the broader vulnerabilities of deaf and Deaf persons in our society to illness, including HIV/AIDS, sexual exploitation and mental-health issues, it should be borne in mind that aside from language difficulties, the specific research topic may pose some additional challenges for deaf people, and may require the use of a specific distress protocol. Clearly, referrals and actions should be commensurate with the participants’ communication preferences and abilities, and should incorporate professionals such as social workers, counsellors and psychologists who are familiar with deafness.

### Illustrative case studies

In Table 1, three studies using deaf participants are summarised that reflect adaptations from standard research protocol to the process of informed consent.

These studies illustrate: the use of a combination of written and signed instructions; a sensitivity to regional variations of sign language; the use of videotape in research; and sensitivity to confidentiality issues.

### Recommendations

Based on these considerations, a summary recommendation sheet for the use of RECs is proposed below.
**Informed consent and the Deaf community: Suggested guidelines**

Protocols involving the use of deaf persons as participants will need to take into account the following:

- the level of deafness of the individual
- whether the hearing loss is congenital or acquired
- the level of education and literacy of the proposed participant.

Certain members of the Deaf culture may be considered potentially vulnerable in the research setting.

For severely to profoundly deaf individuals, oral language skills (talking and lip reading) and literacy may be a problem. This is particularly the case for congenital deafness, as literacy for persons with acquired deafness (after school age) is likely to be inadequate. The presence of a hearing aid (or cochlear implant) does not imply that the message is adequately heard!

It is possible therefore that a standard informed-consent approach is inappropriate, and researchers should bear in mind the following factors.

**The written form**

Research evidence suggests that internationally, the literacy level of deaf school leavers is about Grade 5. Special efforts should therefore be made to make the written version of the form user-friendly – simple language (vocabulary and sentence length), clarification of terms, etc. Pictorial supplements may help here. Note that given current special-education policy in SA, English (or Afrikaans) is likely to be the language of education and literacy, regardless of the spoken oral language of the person’s background.

**The verbal/sign form**

The use of a sign-language interpreter is strongly recommended, especially if the deaf person concerned is a member of the Deaf community and uses sign language as his/her main medium of communication with family and peers. Sign language (like spoken language) has many varieties, and the researcher should endeavour to ensure that the interpreter deployed is familiar with the dialectal variety of the participant.

Videotaping is frequently a necessary aspect of research with the deaf, and should be viewed from a different perspective from the use of video with hearing persons. Extra precautions should be taken to ensure confidentiality. Adequate lighting is essential for sign language, and privacy is essential (because of the strong visual nature of the message). Special care should be taken to inform the participants of how and where the material will be published (particularly in the case of photographs or videotaping).

There are sign-language interpreters available through organisations such as the Deaf Federation of SA. It might also be possible to deploy persons in the participant’s environment, such as family members. However, there are ethical precautions with this choice (e.g. the possibility of coercion) that may operate here, and ideally there should be some checking of the integrity of the process.

We would recommend that both written and signed versions of the informed-consent process are made available, and that researchers are advised to specify the particular steps taken to minimise vulnerability and reduce distress in the informed-consent process in their ethics applications.

**Conclusion**

This paper has highlighted the special vulnerabilities of deaf persons taking part in clinical trials, the complexities around the use of the term ‘deafness’ and some particular considerations which need to be taken into account by research ethics committees when reviewing protocols for studies involving deaf and Deaf persons. The recommendations will hopefully serve as a practical guideline which can obviously be supplemented by the appointment of consultants where relevant from the Deaf community.

Ethical informed consent with deaf/Deaf participants will require explicit insight into potential barriers to enrolment and the deployment of context-specific strategies and resources.

1. Lane H. When the Mind Hears: A History of the Deaf. New York: Random House, 1989.
2. NIH Guidelines on Communicating Informed Consent for Individuals who are Deaf or Hard-of-Hearing and Scientists. Bethesda: National Institutes of Health, 2016. [https://www.nih.gov/health-information/nih-clinical-research-trials-you/g](https://www.nih.gov/health-information/nih-clinical-research-trials-you/g) (accessed 11 August 2017).
3. Rossitn T, Penn C, Ogilvy D. From policy to practice: Sign language studies in post-apartheid South Africa. Lang Policy 2006;5(2):187-208. [https://doi.org/10.1007/s10993-006-9002-y](https://doi.org/10.1007/s10993-006-9002-y)
4. Swanepoel D, Störbeck C, Friedland F. Early hearing detection and intervention in South Africa. Int J Paed Otolaryngol 2009;73(6):783-786. [https://doi.org/10.1016/j.ijpedit.2009.01.007](https://doi.org/10.1016/j.ijpedit.2009.01.007)
5. Parker I. Factors affecting deaf education in South Africa. Am Ann Deaf 2010;155(4):490-493. [https://doi.org/10.1353/aad.2010.0038](https://doi.org/10.1353/aad.2010.0038)
6. Penn C, Reagan T. How do you sign ‘Apartheid’? The politics of South African sign language. Lang Plan Lang Behav 1990;14(2):91-103. [https://doi.org/10.1075/lplp.14.2.02pen](https://doi.org/10.1075/lplp.14.2.02pen)
7. Penn C. Signs of the times: Deaf language and culture in South Africa. S Afr J Comm Dis 1993;40:11-24.
8. Kerr G, Tuomi S, Müller A. Costs involved in using a cochlear implant in South Africa. S Afr J Comm Dis 2012;59(1):16-26. [https://doi.org/10.1379/sajcd.117](https://doi.org/10.1379/sajcd.117)
9. Petersen L, Rogers C. Aminoglycoside-induced hearing deficits – a review of cochlear ototoxicity. S Afr Fam Pract 2015;57(2):77-82. [https://doi.org/10.1080/20786940.2014.100222](https://doi.org/10.1080/20786940.2014.100222)
10. Young A, Hunt R. Research with d/Deaf People. London: NIHR [National Institute for Health Research] School for Social Care Research, London School of Economics and Political Science, 2011.
11. Van Herreweghe M, Vermeerenbergen M. Deaf perspectives on communicative practices in South Africa: Institutional language policies in educational settings. Text Talk 2010;30(2):125-144. [https://doi.org/10.1353/text.2010.0007](https://doi.org/10.1353/text.2010.0007)
12. Kennedy CR, McCann DC, Campbell MJ, et al. Language ability after detection of permanent childhood hearing impairment. New Engl J Med 2006;354(20):2131-2141. [https://doi.org/10.1056/nyjmed.054915](https://doi.org/10.1056/nyjmed.054915)
13. Moses AM, Goulouz DB, Roemen B, Cregan GE. The current state of early literacy for deaf and hearing children: A survey of early childhood educators. J Early Child Literacy 2016;16:1-23. [https://doi.org/10.1177/1468794116671173](https://doi.org/10.1177/1468794116671173)
14. Temple B, Young A. Qualitative research and translation dilemmas. Qual Res 2004;4(2):161-178. [https://doi.org/10.1177/14687941040404430](https://doi.org/10.1177/14687941040404430)
15. Magwagwa L. Deaf education in South Africa. Am Ann Deaf 2010;155(4):493-496. [https://doi.org/10.1353/aad.2010.0042](https://doi.org/10.1353/aad.2010.0042)
16. Constitution of the Republic of South Africa. Act No. 108 of 1996.
17. Department of Basic Education. Education for All (EFA) 2013 country progress report: South Africa. Pretoria: Department of Basic Education, 2013.
18. Reagan T, Penn C. Language policy, South Africa and the deaf: Social and educational implications. S Afr J Appl Lang Stud 1997;5(1):1-13. [https://doi.org/10.1080/10189203.1997.9724654](https://doi.org/10.1080/10189203.1997.9724654)
19. Penn C, Reagan T. The properties of South African Sign Language: Lexical diversity and syntactic unity. Sign Lang Stud 1994;8(4):319-327. [https://doi.org/10.1353/sls.1994.0011](https://doi.org/10.1353/sls.1994.0011)
20. Mackay WE. Ethics Lies and Videotape. CHI Proceedings, 1995. [http://www.sigchi.org/proceedings/chi95/proceedings/papers/096/bdy.html](http://www.sigchi.org/proceedings/chi95/proceedings/papers/096/bdy.html)
21. Janse van Vuuren N. An Exploratory Description of Classifiers in South African Sign Language. MA thesis. Johannesburg: University of the Witwatersrand, 2017.
22. DeafSA. Policy on the provision and regulation of South African Sign Language interpreters. Westhoven: Deaf Federation of South Africa, 2011.
23. Pienaar MA, Cornelius E. Contemporary perceptions of interpreting in SA. Nordic J AF Stud 2015;24(2):186-206.
24. Penn C, Ogilvy D, Commerford A. Spatial and facial processing in the signed discourse of deaf signers with right hemisphere damage and language impairment. Clin Ling Phon 2007;21(5):369-391.
25. De Andrade V. ‘We do not understand each other’: The experience of caregivers of deaf children in a rural South African setting. PhD thesis. Johannesburg: University of the Witwatersrand, 2015.

Accepted 23 October 2017.