Reviewer's report

Title: The Relationship between Sensory Impairment and Functional Independence Among Elderly

Version: 1 Date: 19 October 2003

Reviewer: Victoria Janice Scott

Reviewer's report:

General
Overall, this is a clear description of a well-crafted study on the relationship between sensory impairment and functional independence based on sample taken from the 1991 Health and Activities Limitation Survey (HALS). The topic is important and timely given the growing number of elderly persons with sensory disabilities living in the community. I recommend that this article be published with the following discretionary and minor revisions.

Discretionary Revisions (which the author can choose to ignore)
1. Discretionary revisions:
   - P. 3 ABSTRACT, Results, recommend starting with general findings that reflect the research question and then moving on to specifics, such as the differences by gender.
   - P. 5 BACKGROUND, line 3: The authors refer to “functional and cognitive outcomes” as the two major outcomes of sensory deficits but fail to address cognitive outcomes in the study design. Suggest that the authors address why the study is not addressing “cognitive” outcomes and why “decision-making” and/or “emotional well-being” are considered to be “functional” outcomes.
   - P. 5 METHODS, line 4, recommend using “A sample of persons with disabilities…” rather than a “disable sample…”. Same issue exists throughout the article e.g., in the abstract under Methods, line 6, recommend using “Respondents with sensory disabilities…” or just “Respondents…” rather than “Disable respondents…”
   - P. 5 BACKGROUND, line 6, recommend: “Few studies have elaborated…” rather than “Many studies have not elaborated…”
   - P. 16, DISCUSSION, line 3, suggest elaborating on “improving vision and hearing impairment to a mild degree…”, i.e., can it be assumed that the degree of impairment in this population is amenable to change from a more severe to a mild form of their disability?
   - P. 16 second to last sentence, not sure I agree with the statement the relationship between sensory impairment and IADL dependency is “likely to be indirect”. The evidence provided implies that there are direct components, e.g., if you can’t see it is difficult to clean the house and go shopping without assistance.
   - P. 16, last sentence, add “that” after “identifying factors ….”

Minor Compulsory Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

2. Minor Compulsory Revisions:
   - P. 5 BACKGROUND, line 11, change “relationship with sensory disabilities…” to “relationship with severity of sensory disabilities…” to be consistent with headings under “Analyses” section.
   - Survey Design: Although the authors mention that the HALS methodology is described elsewhere, it would be important to know if the sample used here were limited to those who were cognitively intact.
   - P. 5 Survey Design, line 7: Not clear how the respondents to the HALS “Census Long Form” where
“later classified as disabled”. Was this by self-report?

• P. 6 Variables, Disability Status, line 3, recommend: activities of daily living be in full first time used rather than “ADL”. Given the important of ADLs in defining the person as having a functional disability, it is recommended that the key ADL elements be listed in brackets, i.e., bladder and bowel control, toilet use, grooming, bathing, dressing, feeding, and transfer.

• P. 6 Variables, Disability Status, line 4, authors state that conditions related to a seeing disability be “expected to last six months or more” but do not provide similar criteria for a hearing disability.

• P. 8 Restrictions in IADL, line 1, recommend: elaborating on HALS criteria in order to be considered as “receiving assistance in performing IADL…”, Not clear who the respondents can receive assistance from, e.g., could this include spouses or was it limited to paid support services?

• P. 8, Variables, the title “Relationship between Sensory Disability and Functional Independence” implies analysis. Recommend heading be limited to “Functional Independence”.

• P. 11 RESULTS, Characteristics, line 8: Not clear if the 11% refers to the proportion of respondents with incomes over $25,000 or to the proportion of those with seeing and hearing disabilities in this income bracket.

• Unclear when the authors are talking about “sensory disabilities” in general or when they are talking about “hearing” and “seeing” impairments that lead to “sensory disabilities” (p. 5). Are they indicating that there are other sources of “sensory disabilities” that are not related to hearing and seeing, and if so, what are those. If they are always referring …This is particularly confusing when the provide conflicting statistics on the scope of the problem, e.g., p. 5 “10% and 17%” for those with sensory disabilities from “visual and hearing impairments”; p. 11 “One-tenth….and “one-quarter…with at least on sensory disability”; p. 14 “more than one-half…and…one-third reported a sensory disability”.

• P. 15 second paragraph, line 5, delete redundant use of word “women” in “…women aged 75 years and older women…”

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

What next?: Accept after minor compulsory revisions

Level of interest: An article of considerable merit and interest in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests: None