Translation of the satisfaction with amplification of daily life questionnaire in Urdu for Pakistani population

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**Objective:** To translate the "Satisfaction with Amplification in Daily Life" (SADL) questionnaire to Urdu and evaluate its reproducibility for Urdu speaking Pakistani population.

**Methodology:** This cross sectional study was conducted in Capital Hospital, Islamabad, from April to August 2017 in which 70 hearing aid users of both genders, aged 20-60 years were recruited using convenience sampling. Cases with infective ear and those using cochlear implants were excluded from the study. Study included translation into Urdu and pilot testing followed by SADL-Urdu administration on 60 users. Statistical analysis was done using SPSS version 20.

**Results:** Pilot study revealed comparable results of English and Urdu questionnaire with global score of 5.22±0.43 for English and 5.31±0.44 for the Urdu SADL. Main study revealed very good satisfaction level with questions number 2, 4, 12, 13; a good satisfaction level with question 3,5,7-11,14,15; while a lower satisfaction with questions 1. A very good satisfaction associated with Personal image subscale and lesser with the service and costs subscales.

**Conclusion:** SADL-Urdu is a simple, easily applicable and reliable tool for multidimensional evaluation of satisfaction of Urdu speaking hearing aid user. (Rawal Med J 202:45:665-668).

**Keywords:** Disability, hearing loss, cochlear implant.

**INTRODUCTION**

Hearing loss is one of the most disabling sensory deficit which affects the cognitive and communication skills and is the second most common disability worldwide.\(^1\) Hearing impairment (HI) results in social, psychological and professional hurdles being leading causes of years lived with disability (YLDs).\(^1\) To overcome the impact of HI, Individual Sound Amplification Devices (ISAD) including Hearing aids (HAs) and cochlear implants (CI) are currently the principal means of auditory rehabilitation. They help improve speech, and environment sounds perception, however there are a lot of resistances to their use in daily life. This may be due to the cost and cosmetic concerns or lack of sufficient perceived benefit. Therefore the perception of positive benefit of ISAD's on the Quality of life and the functional status is essential.\(^2\)

Since the demonstration of positive impact of a service is essential in this consumer focused era, hence, hearing aid satisfaction is used an outcome measure for the evaluation of performance. A variety of tools/self-report measures have been designed and used for assessment to access satisfaction through a number of dimensions including the cost, appearance, acoustic benefit, comfort, and service etc.\(^3\)\(^5\)

Assessment of satisfaction to amplification is of utmost importance in rehabilitation since it demonstrates client response to ISAD and improvements required in areas like interaction between clinician and client, accessibility, availability and continuity of services, client convenience, physical settings, and financial considerations etc.\(^5\) During the ISAD fitting process, self-assessment of client is an effective measure for evaluation during the fitting and it also allows ISAD comparison, their calibration and benefit.

A number of assessment tools to access the level of satisfaction through different dimensions have been developed including Satisfaction with Amplification in Daily Life (SADL) developed in English by Cox & Alexander.\(^6\) It quantifies satisfaction in a multidimensional way using four subscales including Positive Effects, Cost and Services, Negative Factors and Personal Image. SADL has good construct validity, test retest
It has been translated and cross-culturally adopted in a number of languages including European Portuguese, Brazilian Portuguese, Chinese and German, however it has still not been translated and cross-culturally adopted in Urdu language for Pakistani population. Due to language barrier, SADL is only rarely used and as a result, true benefit of amplification remains to be tapped. Hence, the current study had objective to translate SADL-English version questionnaire into Urdu (SADL-Urdu) and to evaluate its reproducibility in Urdu speaking Pakistani population fitted with HA.

METHODOLOGY
In this cross-sectional study, the sample population was recruited using convenience sampling technique from Capital Hospital, Islamabad over a period of 4 months from April to August 2017. The study was approved by the Institutional Research Board of Isra Institute of Rehabilitation Sciences, Isra University and informed consent of all participants was obtained. The study population included 70 HA users wearing HA for a minimum of 10 hours daily, with hearing loss of moderate to severe degree, of both genders, aged 20-60 years [10 cases for phase I (pilot study), who were well versed in English and Urdu languages and 60 Urdu speaking users for phase II]. Users with inflammatory diseases of the ear, cases with cochlear implants and those with compromised cognition were excluded. The study was conducted in two phases: Phase I: English version of SADL questionnaire was translated and adopted to Urdu, following the steps indicated by the authors. The SADL Performa comprises 15 questions, divided into four subscales. We formed an expert committee including two linguistic specialists and three subject specialists. Translation was conducted by Bilingual linguistic specialists at National University of Modern Languages. Urdu translation was revised by consensus, of a group of three experts including an otolaryngologist, an audiologist and a speech therapist and differences between translations were reduced by selecting the best words and the text.

Statistical Analysis: SPSS version 20 was used to enter and analyze data.

RESULTS
Out of 70 participants, 48(68.57%) were male and 22(31.43%) females with male female ratio of 2.18:1. Age was between 18 to 60 years (mean 31.27±14.88). Most users were in the age group of 21-30 (41.43%) (Table 1), while amplification was being least used by 41-50 years age group (11.43%). Majority of users were graduates (57.14%).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristic</th>
<th>N (%)</th>
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<tbody>
<tr>
<td>Age</td>
<td>Mean</td>
<td>37.27</td>
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<tr>
<td></td>
<td>Std. Deviation</td>
<td>14.88</td>
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<tr>
<td></td>
<td>Minimum</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>60</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>48(68.57)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22(31.43)</td>
</tr>
<tr>
<td>Age Categories</td>
<td>21-30</td>
<td>29(41.43)</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>14(20.00)</td>
</tr>
<tr>
<td></td>
<td>41-50</td>
<td>8(11.43)</td>
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<tr>
<td></td>
<td>51-60</td>
<td>19(27.14)</td>
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Adaptation of the Urdu SADL was obtained by pilot testing using both English and Urdu SADL initially on 10 cases well versed in English and Urdu, to see reproducibility of the tool. Comparable results, with global score of 5.22±.43 for English SADL and 5.31±.44 for Urdu version were noted. The main study revealed a very good satisfaction level associated with questions: 2,4,12,13; a good satisfaction level with question 3,5-11,14 & 15; while a lower satisfaction rate was found with questions 1 (Table 2).
Another study by Velga et al reported lower level of satisfaction for the negative features subscale. A high satisfaction level (6.5) was noted for remote adjustment of hearing devices in a Brazilian study. Current study revealed high level of satisfaction with highest level of satisfaction was noted for item 2, 4, 12 and 13. Similarly, higher level of satisfaction was noted in a study which targeted single brand hearing aid wearers. The results associated with the questionnaire subscales revealed a very good satisfaction associated with Personal image subscale, lesser with the Service and Costs subscales and a lower satisfaction level with the Negative Factors subscale and Positive Effect (Table 3). These results indicated good questionnaire reproducibility. The users were considerably pleased with their ISAD use. This was also noted in our study with item 11 score of 4.45. Difficulty using telephone is an important issue demanding training in use of telephone with the HA. Over all, it seems that though personality does not significantly affect SADL outcome however provision of technically suitable ISAD and auditory rehabilitation including training, guidance, and counseling are all essential for satisfaction with hearing aid. The limitation of this study is that cochlear implant candidates were not included in the sample.

**CONCLUSION**

SADL-Urdu is a simple, easily applicable tool for multidimensional evaluation of satisfaction of Urdu speaking hearing aid user and should be frequently used by audiologists to better fit hearing aids.
REFERENCES


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