BRIEF REPORTS

The Deaf Identity Development Scale: A Revision and Validation

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The Deaf Identity Development Scale (DIDS; N. S. Glickman, 1993) was revised on the basis of recommendations by N. S. Glickman and was validated on a sample of 323 hearing-impaired participants residing in the southwestern part of the United States. The DIDS is an instrument designed to measure 4 deaf identity constructs: hearing, marginal, immersion, and bicultural. The findings were tested according to the deaf identity development theory and the data were analyzed for internal consistency reliability, item-to-scale reliability, and interscale correlations. Results of these and factor analysis support the existence of 4 relatively independent deaf identities. Results of 4 separate analyses of variance with post hoc multiple comparisons reveal that onset and severity of hearing loss influences one's deaf identity development.

A common stereotype faced by racial-cultural minorities is the belief that all individual members of a particular culture are homogeneous. Research on racial-cultural identity development (Atkinson, Morten, & Sue, 1983; Cass, 1979; Coleman, 1982; Cross, 1971; Helms, 1984, 1990; Jackson, 1975; Parham & Helms, 1981; Ponterotto, Cassa, Suzuki, & Alexander, 1995; Sebnani, Ponterotto, & Borodovsky, 1991; Scrivner, 1984; Sue & Sue, 1990; Trocien, 1979) disputes the erroneous belief that all ethnic and nonethnic minority members are the same. As nonethnic minority members, people who are deaf do not escape from this monocultural view of minorities. A common stereotype is the assumption that all people who are deaf use sign language to communicate. Little empirical research has been conducted to identify the existence of individual or within-group differences in the deaf population. Even less research has studied the identity development among people with hearing impairments (e.g., Covington, 1980; Glickman & Carey, 1993; Maxwell, 1998; Shove, 1979; Wineberg & Sterritt, 1986).

Believing the process of deaf identity development is similar to that of other culturally different people (e.g., racial and ethnic minorities), Glickman (1993) proposed four distinct types of deaf identities derived from particular life experiences common to deaf people. These identities, arranged in stages, are hearing, marginal, immersion, and bicultural.

In the hearing identity, a hearing-impaired person adopts the mainstream hearing society's frame of reference, as he or she strives to function similarly to a hearing person in attitude, behavior, communication style, and so forth. Deafness is viewed as a medical-pathological condition. In the marginal identity, a hearing-impaired individual is ambivalent about his or her deafness and about which cultural frame of reference (hearing or deaf) to call his or her own. Although marginality in deaf and other minority identity development is commonly perceived as a negative term (Emerton, 1996), it is a temporary stage in which one develops a more solidified identity. In the immersion identity, the person has a sense of "Deaf pride" such that there is a high level of involvement with the Deaf community. (The word Deaf is capitalized to represent the social, cultural, and political affiliation with the Deaf community.) The mode of communication used is American Sign Language (ASL). This identity is characterized by a tendency to deprecate hearing people while simultaneously idealizing Deaf people. A deaf person with a bicultural identity, who can also be bilingual in spoken and signed communication, recognizes the strengths and weaknesses of both deaf and hearing people while achieving a sense of inner security with his or her own deafness.

To test the theory of the existence of four deaf identities, Glickman (1993) developed the Deaf Identity Development Scale (DIDS) to measure the identities. Initially tested on a sample of 161 hearing-impaired people, results showed evidence of reliability and validity for the measure. To improve the psychometric properties, Glickman (1993) recommended rewording, eliminating, and adding some items.

In the present study, we sought to revise the DIDS and then collect evidence of reliability and validity for the revised version. We used a sample of hearing-impaired people residing in a different geographic location from that of Glickman's (1993) original sample. Additionally, we investigated the relationship between a participant's onset and degree of hearing loss and his or her deaf cultural identity. Thus, we divided participants into the three following groups according to the varying degrees and onset of hearing loss: prelingually deaf people (i.e., those who were deaf at birth or before the age of two years), postlingually deaf people (i.e., those who were deaf after the age of two years), and hard-of-hearing people.
Method

Participants

Three hundred twenty-three individuals with hearing impairments—113 prelingually deaf people, 100 postlingually deaf people, and 110 hard-of-hearing people—completed the revised DIDS and an additional 15 demographic items.

In the prelingually deaf category, 52% were women. Thirty-two percent of these people were between 21 and 30 years old and 25% were over 51 years of age. Eighty-six percent of the respondents were Caucasian. The highest educational level attained was college graduate (46%) followed by some college education (33%). When asked how they preferred to communicate, 41% preferred using ASL, 31% preferred speaking and signing simultaneously, and 25% preferred communicating orally (speech and speechreading). The remainder preferred to communicate through writing.

In the postlingually deaf category, 55% were women and 65% were over 51 years of age. Eighty-seven percent were Caucasian. The highest educational level attained was college graduate (43%) followed by some college education (35%). Forty-two percent preferred communicating orally, 31% preferred speaking and signing simultaneously, and 21% preferred using ASL.

In the hard-of-hearing category, 52% were women and 47% were over 51 years of age. Ninety percent were Caucasian. Thirty-four percent received some college-level education, 31% were high school graduates, and 29% were college graduates. Sixty-three percent preferred communicating orally, whereas 27% preferred speaking and signing simultaneously.

Instrument

In the development of the DIDS items (Glickman, 1993), minority identity theories were reviewed and adapted to the experiences of deaf people. Literature on deaf culture and identity was reviewed, and deaf and hard-of-hearing experts on deafness were consulted. An initial pool of 85 items were developed to represent the major themes of deafness that were identified. Eleven judges, three of whom were deaf, were asked to match each item with each stage. As a result, 15 items each with the highest inter-rater agreement were selected for each of the four identity scales.

The DIDS, which was originally written in English, was translated into ASL by a native deaf signer. A back-translation was performed by an ASL-to-English interpreter who was unaware of the original English language version. The back-translation and the original English version were compared by a bilingual consultant. Modifications were made when significant discrepancies were revealed.

On the basis of a sample of 161 participants in the New England area, 105 of whom were deaf students attending a university for deaf people and 56 of whom were members of an organization for people who became deaf late in life, Glickman (1993) reported internal consistency reliability coefficients of .86 for the Hearing Scale, .76 for the Marginal Scale, .83 for the Immersion Scale, and .81 for the Bicultural Scale. Reported significant scale intercorrelations were as follows: Hearing with Marginal, .57; Hearing with Immersion, .30; Marginal with Bicultural, .43; and Hearing with Bicultural, .47. The correlation of Marginal with Immersion was nonsignificant at .09, and the correlation of Immersion with Bicultural was nonsignificant at .05.

Exploratory factor analyses of each scale were performed on the original DIDS to provide information about item factor loading and to guide interpretation of what each scale was actually measuring. Separate factor analyses were performed on each subsample in order to determine whether the factor structure of the DIDS was consistent across groups (Glickman, 1993).

Our revisions to the DIDS were based on Glickman’s (1993) suggestions, which included adding, rewording, and eliminating items. One item each was added to the Hearing and Immersion Scales and three were added to the Marginal Scale. These items were added to more strongly address factors characteristic of the scale. For example, in the Hearing Scale, an item was added that strongly related to the medical–pathological factor. One item was deleted from the Bicultural Scale because of poor item-to-scale correlation and was replaced with an item that addressed the bilingualism factor of this scale. One item in the Bicultural Scale and one item in the Marginal Scale was reworded to improve the item-to-scale correlation. Two items in the Marginal Scale were reworded for clarity.

The revised DIDS is a 60-item, 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree), with an additional 15 items pertaining to demographic information included for this study. The purposes of including the demographic items was to divide hearing-impaired participants into the prelingually deaf, postlingually deaf, and hard-of-hearing categories in order to compare means and confidence intervals among these groups. The remaining demographic information was used to provide a summary of participants’ backgrounds. Four sets of 15 items in the revised version of the DIDS correspond to the four stages of deaf identity development.

Procedures

We mailed 600 revised versions of the DIDS to various organizations, associations, and clubs for deaf and hard-of-hearing people, primarily in the southwestern part of the United States; 261 usable responses were returned, yielding a response rate of 43%. An additional 62 responses were obtained from participants who were university students and from others who attended organizational meetings for hearing-impaired people.

Results

Second Revised Version

Item analysis. Item-to-scale correlations using Pearson product–moment were computed for each item in each of the four identity scales. All items, with the exception of one, were found to correlate higher with their own scales than they did with other scales, as expected. This item (item 30) was found to be statistically nonsignificant with the Marginal Scale.

Factor analysis. On the second revised version of DIDS, a principal-components factor analysis with varimax rotation was carried out for four factors. When the number of factors was limited to four, all items labeled as hearing loaded above .30 with the exception of five items (Items 4, 34, 41, 53, and 55). All items labeled as marginal loaded above .30 with the exception of three items (Items 13, 30, and 40). All items labeled as immersion loaded above .30 with the exception of three items (Items 18, 26, and 29). All items labeled as bicultural loaded above .30 with the exception of two items (Items 11 and 59). These four factors accounted for 23% of the total variance.

Third Revised Version

Following the practice of considering factor loading coefficients of at least .30 (Bryant & Yarnold, 1995), we eliminated items with factor loadings of less than .30 in the third and final version of the DIDS. The item with a nonsignificant item-to-scale correlation (item 30) also had a low factor loading with the Marginal Scale and thus was eliminated. After the elimination of items, the resulting DIDS is a 47-item, 5-point Likert Scale. The Hearing Scale has 10 items, the Marginal and Immersion Scales each have 12 items, and the Bicultural Scale has 13 items.

Reliability analyses. We computed Cronbach’s coefficient alpha to determine the internal consistency coefficients of each scale in the third version of the DIDS. Internal reliability coefficients in
the third revised version are as follows: The Hearing Scale is .81 as compared with .86 in the original study, the Marginal Scale is .84 as compared with .76 in the original study, the Immersion Scale is .87 as compared with .83 in the original study, and the Bicultural Scale is .78 as compared with .81 in the original study. In comparing alphas of the third version with those of the original DIDS (Glickman, 1993b), we found that revisions slightly improved the internal consistency of both the Marginal and the Immersion Scale. However, the elimination of several items slightly decreased the internal consistency of the Hearing and Bicultural Scales.

We computed inter-scale correlation coefficients using Pearson product–moment (see Table 1) to determine if the scales relate to each other in a manner consistent with the deaf identity development theory. Generally, these findings produced expected results consistent with the deaf identity development theory with the exception of correlations of the marginal identity with the immersion identity. Instead of an expected negative correlation between the marginal and immersion identities, results demonstrated a positive correlation (.33). Glickman (1993) also found a weak positive correlation between the marginal and immersion identities (.09) in the original DIDS study. Although the revision strengthened the correlations of the Immersion Scale with the Marginal and Bicultural Scales, it weakened the correlations between the Hearing and Immersion Scales and between the Marginal and Bicultural Scales.

Criterion-related validity. To establish criterion-related validity, we conducted four univariate analyses of variance (ANOVA$s) with each identity scale as the dependent variable and the three hearing-loss groups as independent variables. The results were significant for three identity scales with the exception of the Marginal Scale, $F(2, 316) = 2.72, p = .068$. We conducted further analyses using Scheffé post hoc multiple comparisons to pinpoint significant differences among the three hearing-loss groups on each scale.

In the Hearing Scale, $F(2, 317) = 4.86, p = .008$, post hoc analysis using Scheffé multiple comparisons revealed that the scores of the hard-of-hearing participants ($M = 26.12$) were significantly higher than those reported by the prelingually deaf participants ($M = 23.49$) and the postlingually deaf participants ($M = 23.59$). In the Immersion Scale, $F(2, 316) = 9.87, p = .000$, the scores were significantly higher among the prelingually deaf participants ($M = 31.22$) than they were among the postlingually deaf participants ($M = 26.59$) and the hard-of-hearing participants ($M = 25.90$). In the Bicultural Scale, $F(2, 313) = 13.97, p = .000$, the scores of the prelingually deaf participants ($M = 51.66$) and of the hard-of-hearing participants ($M = 49.61$) were significantly higher than those of the postlingually deaf participants ($M = 46.26$).

Discussion

The results of this study support the deaf identity development theory. Four theoretical deaf cultural identities can be measured by the DIDS. The DIDS provides a template for clustering respondents into one of the four identity groups. On the basis of correlational evidence, revisions to the DIDS did improve the internal consistency of the Marginal and Immersion Scales.

People who were born deaf or who were deaf before age two scored higher on the Immersion Scale than did people who were hard of hearing. Prelinguially deaf people also scored higher on the Bicultural Scale than did postlinguically deaf people. On one hand, this finding suggests prelinguically deaf individuals are more culturally deaf. On the other hand, higher scores on the Hearing Scale for hard-of-hearing people suggest that they are more culturally hearing than are people who are prelinguically deaf and postlinguically deaf. This finding is compatible with the deaf identity development theory. The onset and severity of hearing loss do seem to be related to one’s deaf identity development.

Relationships of identity scales to each other were supported, with the exception of the marginal identity with the immersion identity. We found a positive correlation between these two identity scales instead of an expected negative one. There is not enough evidence to support any interpretation of this finding at this time.

Not only did this revision of the DIDS clarify the relationship of the Marginal Scale with the Immersion Scale, but this revision also strengthened the relationship between the Immersion and Bicultural Scales. Because both immersion and bicultural identities are conceptualized as two aspects of cultural deafness, we expected a relationship between these two identities. Surprisingly, results from the original study produced no correlation between the two identities. The revision of items in the bicultural identity strengthened the correlation between the two scales. This positive correlation between the Immersion and Bicultural Scales is more compatible with the deaf identity development theory.

Even though the return response rate was 43% in this study, some of the remaining 340 who did not return the questionnaires were probably self-eliminated because of the vocabulary and comprehension level of the questionnaire. Many deaf people's primary language is ASL, which is grammatically different from the written English language on which this questionnaire was based. Because the DIDS is an instrument designed for use in the deaf-hearing cross-cultural context and given the difference in grammar structure between ASL and English, the psychometric issue of cross-cultural equivalence is raised (Brislin, 1986; Lonner, 1981).

To ensure linguistic equivalence, Glickman (1993) used the back-translation as a method in the construction of the DIDS instrument. Additionally, Glickman (1993) used an ASL videotape to accompany the DIDS instrument and, surprisingly, found that very few participants used it. However, an ASL videotape accompanying the questionnaire may help increase the understandability of items among ASL users with educational levels at or below high school.

Although the back-translation demonstrated semantic equivalence, the issue of functional and conceptual equivalence remains uncertain.
Glickman (1993) acknowledged that cultural differences between prelingually deaf people and postlinguially deaf people may result in different readings of DIDS items. For example, one item is "I call myself 'deaf.'" A Deaf person with an immersion identity to whom the Deaf versus deaf distinction is meaningful might disagree with the item because it does not convey Deaf pride. A deaf person with a hearing identity might disagree with the item for the opposite reason, because it signifies too much Deaf pride by not identifying deafness as a medical-pathological condition.

A major limitation of the DIDS is that only 23% of the total variance was accounted for by the four factors (identity scales). This low variance may be a function of the great variability among participants in age, educational level, and preferred communication method. Another limitation reported in a previous DIDS study with hearing participants (Leigh, Marcus, Dobosh, & Allen, 1990) is the social desirability factor. Certain items on the DIDS apparently produced socially correct responses in favor of the bicultural identity. This may be a factor in the present study as well. To control future social desirability biases, reworded items may eliminate obvious positive or negative social desirability components.

An example of a DIDS item with a negative social desirability connotation is, "Being deaf means feeling lonely and isolated." Parham and Helms (1981) corrected a similar bias in the Racial Identity Attitude Scale by rewording some items that had obvious negative social desirability connotations.

The goal of the DIDS is to "provide an operational measure of Deaf people's orientation to and affiliation with the Deaf community and Deaf culture." (Glickman & Carey, 1993, p. 280). Therapists working with people who are deaf need to be aware of and sensitive to differences within this group when providing mental health services. Using the DIDS, therapists can assess the degree of cultural identity of their clients who are deaf, or they can at least ask relevant questions as guided by the DIDS. Once the cultural identity of the client is determined, the therapist can provide more culturally affirmative counseling for clients with deaf identity concerns such as self-awareness and degree of comfort with deaf and hearing worlds. By knowing the various nuances among the deaf population, therapists demonstrate their knowledge and sensitivity, which may relieve their deaf clients from the task of orienting them to the deaf culture (Glickman & Harvey, 1996).

This study on the DIDS, nonetheless, underscores that differences do exist among deaf people, just as differences exist among other ethnic or cultural minorities. Not all deaf individuals are alike. Many differ with respect to communication styles, preference of social interaction, and attitudes and values toward deafness. Continuing the work on the DIDS or other similar instruments can only serve to enrich the appreciation of and respect for diversity among people who are deaf.

References


Appendix

Revised Deaf Identity Development Scale (DIDS)
Questionnaire Items

1. I enjoy both deaf and hearing cultures.
2. I don’t know how I feel about deaf people.
3. Deaf people should only use ASL.
4. I support deaf culture without insulting hearing people.
5. Deaf people do not need hearing aids.
6. I feel sorry for deaf people who depend on sign language.
7. It’s hard for me to make friends.
8. American Sign Language and English are different languages of equal value.
9. There is no place for hearing people in the deaf world.
10. I don’t like it when deaf people use sign language.
11. I want to help hearing people understand and respect deaf culture.
12. I don’t know whether to call myself “hearing impaired” or “deaf.”
13. Only deaf people should teach deaf children.
14. Deaf people should not marry other deaf people.
15. When I see deaf people use sign language, I walk away.
16. I can change between ASL and Sign English.
17. Neither deaf nor hearing people accept me.
18. Deaf people are satisfied with what the deaf world has to offer.
19. I am always alone.
20. I don’t understand why deaf people have their own culture.
21. I have both deaf and hearing friends.
22. When I am with hearing people, I remember my pride as a deaf person.
23. The focus of deaf education should be teaching deaf children to speak and lipread.
24. I don’t know whether to think of my deafness as something good or bad.
25. I feel comfortable with my child being either deaf or hearing.
26. It is best for deaf people to communicate with speech and lipreading.
27. Teaching deaf children to speak is a waste of time.
28. I don’t know whether to respect or resent hearing people.
29. I only socialize with hearing people.
30. It is wrong to speak while signing.
31. I have thought a lot about what it means to be a proud, strong deaf person.
32. I try to communicate well in both English and ASL.
33. Hearing counselors, teachers, and doctors who specialize in treating deaf people can give me the best advice.
34. I feel comfortable with both deaf and hearing people.
35. Only deaf people should run deaf schools.
36. I feel good about being deaf, but I involve myself with hearing people also.
37. I can’t trust hearing people.
38. I call myself “hearing impaired.”
39. Learning to lipread is a waste of time.
40. I don’t know what is the best way to communicate.
41. Deaf people should only socialize with other deaf people.
42. I do not fit in with either hearing or deaf people.
43. My hearing friends will fight for deaf rights.
44. Being deaf means feeling lonely and isolated.
45. Sometimes I’m happy to be deaf, but most of the time I wish I could hear.
46. If an operation could make me hearing, I would not accept it.
47. I don’t know whether I’d rather be with deaf or hearing people.
48. Sometimes I wish I were more part of the Deaf community.
### DIDS Items Organized by Scale

**Hearing Scale**

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