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## IMPACT OF COMMUNICATION ON DEPRESSIVE VULNERABILITY IN DEAF INDIVIDUALS

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### Abstract

Mode of communication and perceived communication with mother deserve attention within the mother-deaf child relationship. This study explored the impact of both factors on each other and on the vulnerability of young deaf college students for depressive symptoms using measures revised to meet the language needs of this population. Depression was negatively associated with perceived communication with mother. Mode of communication significantly related to perceived communication with mother, with oral subjects scoring highest. They were also least depressed. Further analysis revealed that subjects communicating with their mothers through signs only and vice versa scored as high for perceived maternal communication as did oral subjects. This suggests that a "good match" between mother and child in mode of communication positively impacts on the young deaf adult's emotional health.

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As is well known, hearing impairment impacts on the communication process insofar as it influences the nature of the input received by the hearing impaired individual. The impact on parent-child interaction can be far-reaching. All too often, relationships can be strained by the difficulties in communication, especially if children do not speak or sign clearly or parents are unable to make themselves understood (Schlesinger & Meadow, 1972). The consequences of this are exemplified by research which indicates that hearing parents relate to young deaf children differently

and in a more controlling manner compared to hearing children (Brinich, 1980; Meadow, Greenberg, Erting, & Carmichael, 1981; Schlesinger & Meadow, 1972; Wedell-Monnig & Lumley, 1980). Stein and Jabaley (1981) have observed that if inadequacies exist in the bonding process between parent and deaf child, there is increased potential for emotional difficulties in the deaf adult. Meisegeier (1979) also notes that while it is frequently possible to find deaf individuals who feel very much a part of their hearing families, it is common enough to find deaf adults who feel very isolated and different from hearing family members.

While many deaf adults use manual communication with their deaf peers, few receive signed linguistic input from their parents (Meadow, 1980). Chough (1979) found that oral communicators felt more accepted by family members than did those using total communication (who tended to attend residential schools). The latter, however, felt less sad about their hearing loss. According to Sussman (1974), oral communication ability positively correlated with self-esteem. However, Meisegeier (1979) did note in his study of parental influences in the development of occupational goals for deaf college students that the quality of perceived communication between parents and subject overrode mode of communication considerations for those who used oral or manual communication.

A previous article (Leigh, Robins, Welkowitz, & Bond, in press), reports that in a group of deaf and hearing college students, depressive symptoms were associated with perceptions of lower maternal care and higher maternal overprotection. Both are aspects of maternal bonding. Such a result

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argues anew for the relevance of maternal factors in molding the affective adaptability of young deaf adults and re-emphasizes the value of making available appropriate maternal support/guidance in rearing deaf children. Two additional factors that would appear to be important components in the mother-child relationship include mode of communication and how the individual perceives communication with mother. The question then is to what extent either factor impacts on the other and on the young deaf adult's vulnerability for symptoms of depression.

### Method

#### Subjects

The subjects were 51 females and 51 males attending the National Technical Institute for the Deaf (NTID) who participated as part of a larger study on the relationships of personality and parental-child relations to depression in deaf and hearing individuals (Leigh, Robins, Welkowitz, & Bond, in press). Criteria for the subjects were as follows: hearing loss greater than 80 dB, onset of deafness at age 2 or earlier (in actuality 90 out of 102 subjects reported age at onset at birth while the remainder reported becoming deaf anywhere from 2 to 24 months of age), no additional handicaps, parents with normal hearing, and age less than 25.

#### Measures

A *Biographical Data Sheet (BDS)* was developed for use in this study. Its purpose was to request information on relevant subject criteria for inclusion in this study, subject variables (sex, educational setting, and preferred mode of communication) and items reflecting the dimension of perceived communication with mother. The preferred mode of communication choices included oral communication, signs and fingerspelling, or both oral and signs (mixed). Two items asked respectively which mode of communication the subject used to communicate with his/her mother and vice versa.

The items reflecting the dimensions of perceived communication with mother were as follows: "While you were growing up, how much did you communicate with your mother?" and "In general, how well were you and your mother able to understand each other (without repeating over again)?" Both items were adapted from the two questions written by Meisegeier (1979) to tap into a dimension covering ability of parent and subject to

talk together and the quality of understanding when the subject was deaf. Responses for each item ranged from 1 (little or not very well) to 6 (a lot or very well). The Pearson product-moment correlation coefficient of the two items were .69 for mother and .76 for father, both significantly different from zero at the .001 level of confidence, indicating some agreement between the two items. The two scores were therefore added together to get a total score ranging from 2 to 12 that represented the "perceived communication with mother" variable. The internal consistency reliability of this index was estimated at .93 for father and .90 for mother.

*The Beck Depression Inventory (BDI)* is a 21-item self report questionnaire that assesses depressive symptomatology (Beck, 1967). Bumberry, Oliver, and McClure (1978) found the BDI to be valid for a university population according to clinical ratings made by a psychiatrist blind to BDI scores. Split-half reliability of .86 was reported. Scores of 10-18 are considered to represent mild depression, 19-25 moderate, and 26 and above severe depression. For this study, the BDI was revised for use with a deaf college population with limited exposure to American Sign Language. The language characteristics of this population are specified according to NTID, 1983-1984. The revision procedure itself is fully described elsewhere (Leigh, Robins, & Welkowitz, 1988).

#### Procedure

All 102 deaf subjects filled out the BDS and the revised BDI as part of the larger study mentioned earlier.

#### Results

Forty-nine percent of the 102 deaf subjects were not depressed; 43% scored in the mildly depressed range and 8% were moderately depressed. No subjects were severely depressed.

For mode of communication, 32 subjects chose the oral only while 13 preferred signs and fingerspelling only and 57 opted for the mixed category (oral and signs). On the index reflecting perceived communication with mother, scores ranged from 4 to 12 out of a possible 2 to 12 spectrum.

Three Chi-square tests performed to analyze the group distributions between preferred mode of communication and maternal communication modes all indicate that the distributions noted therein deviate significantly from chance. The results are presented in Tables 1, 2, and 3.

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According to Table 1, all oral subjects and a preponderance of the mixed subjects communicate orally with their mothers. By and large, the rest of the mixed group communicated in a mixed mode. Those who rely on signs communicate with their mothers about equally via either oral, signs, or a mixed mode. The large *N* for the maternal oral communication category is thereby explained. Again, as noted in Table 2, practically all of the oral subjects and a majority of the mixed subjects report their mothers as communicating with them solely in the oral mode while the rest of the mixed group, with the exception of 3 individuals, claim their mothers rely on a mixed mode of communication. The sign group see their mothers as relying on each of the three communication modes in roughly equal numbers. Finally, Table 3 reveals that those who communicate orally with mothers see the mothers as communicating likewise with them. The same is basically true for the sign and mixed groups who see their mothers as communicating likewise with them.

We next looked at the relations between these mode of communication variables and perceived communication with mother, using analysis of variance. The three types of preferred communication differed on perceived communication with mother ( $F(2, 99) = 7.94, p < .01$ ). Those who selected oral communication scored significantly higher than did those in either the sign ( $t(99) = 3.04, p < .01$ ) or mixed groups ( $t(99) = 3.63, p < .01$ ). The sign and mixed groups did not significantly differ from other.

The two one-way ANOVA'S performed in the service of highlighting the effects of maternal communication modes on perceived communication with mother were significant. How one communicated with mother affected perceived communication with mother ( $F(2, 99) = 21.98, p < .01$ ). Specifically, those who communicated with their mothers orally perceived maternal communication as significantly better than did those who relied on a mixed mode ( $t(99) = 6.57, p < .01$ ). There was also a significant difference in favor of those who communicated with their mothers orally as compared with those relying on a mixed mode ( $t(99) = 3.54, p < .01$ ). The difference between those who communicated with their mothers through signs and those who reported using a mixed mode was insignificant.

Perceived communication with mother was also significantly affected by how mothers communicated with subjects ( $F(2, 99) = 11.77, p < .01$ ),

to the extent that subjects who reported their mothers as communicating orally perceived maternal communication on a significantly higher level than did those reporting their mothers as using a mixed oral/sign mode ( $t(99) = 4.83, p < .01$ ). The same was true for those mothers reported to use signs in comparison to those using the mixed modality ( $t(99) = 2.17, p < .05$ ). There was no significant difference between those who reported their mothers as using the oral modality and those reporting that their mothers relied on signs.

There was a significant negative Pearson correlation between the BDI and perceived communication with mother ( $r = -0.41$ ). The better the communication with mother as perceived by deaf subjects, the less prone these deaf subjects were to depressive experiences.

The relationship between mode of communication and the BDI was analyzed using a one-way ANOVA. The lowest BDI mean score was obtained by the group preferring oral communication ( $M = 8.00, SD = 4.85$ ), while the group relying on signs scored highest ( $M = 12.15, SD = 5.96$ ) and the mixed group fell in between ( $M = 10.68, SD = 5.38$ ). Differences among these three means were significant ( $F(2, 99) = 3.83, p < .05$ ). The oral and sign groups differed significantly ( $t(99) = 2.38, p < .05$ ), as did the oral and mixed groups ( $t(99) = 2.29, p < .05$ ). The sign and mixed groups did not significantly differ from each other.

### Discussion

The importance of maternal communication is emphasized by the significant negative association between depression and perceived communication with mother. While it is clear that correlation does not necessarily mean causation, there is a good indication that facilitation of mother-child communication when the child is deaf augurs well for the child's emotional status as a young adult. It appears likely that those who perceive their communication with mother as being of a facilitative nature such that they feel recognized and understood have been able to establish some roots within their family structure that enable them to feel less isolated, more accepted, and consequently less depressed even if there is some denial of maternal communication difficulties. This assumption is buttressed by research such as those of Burke & Weir (1978) and Matteson (1974) indicating that those adolescents who perceived more facilitative parental communication tended to report fewer negative affective states and exhibit higher self-esteem.

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The presence of a significant relationship between mode of communication and perceived communication with mother implies that the latter depends to some extent on communication methodology. As was indicated in this study, most mothers of deaf offspring rely primarily on oral communication. The existence of a common and congenial maternal communication pattern may explain why oral subjects register the highest level in perceived communication with mother, thereby helping to attenuate depression vulnerability compared to the sign and mixed groups. This adds credence to Sussman's (1974) observations on the power of oral communication in enhancing self-esteem. Whether results are confounded by potential denial of communication inadequacy cannot be determined or ignored. However, further analysis highlights findings that substantiate Meisegeier's (1979) contention that quality of perceived communication between subject and parents overrides mode of communication considerations. Since those who communicate with their mothers through signs only and vice versa score as high for

perceived maternal communication as do the oral subjects, it is clear that the quality of perceived communication seems to hinge at least in part upon the ability of mothers and subjects to obtain a "good match" or "good fit" insofar as mode of communication is concerned. This is further supported by the poorer results for those subjects who indicate a mixed oral/sign modality preference. They appear to have greater difficulty in getting a congenial maternal communication mode established since their mothers tend to use the oral rather than mixed modality. Less than optimal maternal communication is also likely to be experienced by those in the sign group who report communication with their mothers through alternate modalities (oral or mixed). Implied is the notion that if mothers gained competency in matching their deaf children's communication needs, mode of communication considerations would recede in importance vis-à-vis perceived communication, thereby supporting Meisegeier (1979), and the impact on the young deaf adult's emotional health would likely be positive.

**TABLE 1**

**MODE OF COMMUNICATION WITH MOTHER AS A FUNCTION OF  
PREFERRED MODE OF COMMUNICATION**

	Communication with Mother				
	Oral	Signs	Mixed	Row Total	
Preferred Mode of Communication	Oral	32	0	0	32
	Signs	4	5	4	13
	Mixed	37	2	18	57
Column Total	73	7	22	102	

Chi-square ( $\chi^2$ ) = 39.09, degrees of freedom = 4,  $p < .01$

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**TABLE 2**

**MATERNAL COMMUNICATION WITH SUBJECTS AS A FUNCTION OF  
PREFERRED MODE OF COMMUNICATION**

		Maternal Communication with Subjects			
		Oral	Signs	Mixed	Row Total
Preferred Mode of Communication	Oral	31	0	1	32
	Signs	4	6	3	13
	Mixed	33	3	21	57
Column Total		68	9	25	102

Chi-square ( $\chi^2$ ) = 41.24, degrees of freedom = 4,  $p < .01$

**TABLE 3**

**THE TWO DIMENSIONS OF MATERNAL COMMUNICATION**

		Maternal Communication with Subjects			
		Oral	Signs	Mixed	Row Total
Subject Communication with Mother	Oral	67	0	6	73
	Signs	0	6	1	7
	Mixed	1	3	18	22
Column Total		68	9	25	102

Chi-square ( $\chi^2$ ) = 115.91, degrees of freedom = 4,  $p < .01$

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