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CURRENT MISCONCEPTIONS ABOUT MENTAL RETARDATION

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Owing to the legislative, medical social, and educational advances in services to the handicapped in recent years, it is anticipated that knowledge of mental retardation has subsequently increased. The responses of college students and experts on a 16-item questionnaire related to mental retardation were assessed. Results indicated that there has been a significant increase in knowledge about the mentally retarded during the last 6 years; however, misconceptions persist, especially among students.

Keywords: mental retardation, intellectual disability, misconceptions, handicapped, teachers, students.

If teachers and other professionals are to be maximally effective in working with mentally retarded persons and their families, then it is important that they keep abreast of current developments in the field as well as be aware of the prevailing beliefs held by others. Previous researchers have attempted to validate the premise that knowledge will promote more positive attitudes toward the retarded and increased competence in working with them. Alcorn (1963) reported that a college education improved attitudes toward the mentally retarded, especially if students had completed course work in special education. However, others (Greenbaum & Wang, 1965; Mahoney & Pangrac, 1960; Prothero & Ehlers, 1974; Semmel, 1959) have disagreed, suggesting that knowledge about mental retardation, even after completion of coursework in the field (Begab, 1970), has little effect on improving attitudes toward individuals with intellectual disabilities. Mahoney and Pangrac (1960) found that

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relevant courses and grade-point indices were related to the number of statements on mental retardation answered correctly, although the correlations were low and misconceptions still existed.

Hill, Hill, and Lewis (1976) compared 100 undergraduate and 20 graduate students to 77 experts from the American Academy on Mental Retardation in terms of responses to 16 statements related to mental retardation. Results indicated that there is general agreement among the experts on most of the statements and that misunderstandings about the mentally retarded are still prevalent among college students. Hill et al. further delineated the undergraduates into three groups: those with no experience and no courses in mental retardation, those with courses but no experience, and those with experience but no courses. The initial group could provide an indication of the depth of the problem in society.

Since the Hill et al. (1976) investigation was conducted, there has been a national effort in the United States to raise its consciousness of the handicapped. Two pieces of legislation have been especially effective in raising society's awareness and treatment of handicapped individuals: Section 504 of the Vocational Rehabilitation Act (P.L. 93–112) and the Education of All Handicapped Children Act (P.L. 94–142). Such regulations—as well as organizations such as the American Association on Mental Deficiency, the President's Committee on Mental Retardation, the Council for Exceptional Children, the Joseph P. Kennedy, Jr. Foundation, numerous parents' groups, and the mass communications media—have had a tremendous impact on the public's awareness and accommodation to the handicapped, including the intellectually disabled. It is anticipated that recent efforts on behalf of the handicapped will have subsequently reduced the public's misconceptions of mental retardation. To update professional understanding of what people believe about mental retardation, I replicated the Hill et al. (1976) study, conducting comparisons to test whether fallacies held as recently as 6 years ago persist.

Method

Participants, Procedure, and Measures

The sample consisted of 228 participants, comprising 59 "experts" who were certified special educators in facilities within the Chicago metropolitan area, and 91 undergraduate and 78 graduate college students from the special education division of three universities. Following the method used by Hill et al. (1976), the undergraduate students were further divided into three subgroups: those with neither coursework nor experience with the mentally retarded (n = 30), those with coursework but no experience (n = 18), and those with experience but no coursework

dealing with the mentally retarded (n = 27). Of the 91 undergraduates, 16 did not meet the criteria and were not included in the subgroups.

Each participant completed a 16-item questionnaire containing statements referring to mental retardation, and provided information on age, gender, number of courses taken dealing with mental retardation, level of education, and teaching experience with intellectually disabled youngsters. The chi-square technique was employed to analyze the obtained data and compare these to those sourced by Hill et al. (1976).

Results

There were no significant differences based on gender, age, or level of education; therefore, responses were combined in further analyses. Chi-square values for the data presented in Table 1 revealed that undergraduates had significantly more misconceptions than experts on statements 1, 2, 3, 7, and 9 ($p < .05$); graduate students had more misconceptions than experts on statements 3, 7, and 9 ($p < .05$); and undergraduates had one more misconceptions than graduate students on statement 6. In comparison, Hill et al. (1976) revealed statistically significant differences ($p < .05$) on statements 6, 7, and 16 between the two groups of experts; statements 1, 3, 7, and 15 between the undergraduates; and 3, 4, 5, 7, 9, 12, 14, and 15 between the graduates.

Following Hill et al. (1976), the undergraduate students' responses were examined in greater detail. Between-group chi-square values were calculated for each question, but none approached significance. Further, as shown in Table 2, there were no statistically significant differences based on the students' experience between my results and those of Hill et al.

Discussion

Generally, our results reflect the current professional thinking on mental retardation, and replicate the findings of Hill et al. (1976). Statements 14 and 16 produced the greatest disagreement, with the former reflecting its controversial treatment within the literature (Sternlicht & Siegel, 1968) and the latter indicating a lack of knowledge. Misconceptions relating to statements 10, 11, and 13 have been nearly eliminated, indicating that incorrect beliefs concerning the physical and genetic causes of mental retardation are decreasing.

Hill et al. (1976) reported that statement 15, concerning the effects of frights or mental shocks during pregnancy, received a high percentage of incorrect responses (27%); however, we found a significant decrease in misconceptions regarding this item.

Table 1. *Percentage of Incorrect Responses to Statements About Mental Retardation*

	Statement (True/False)	Experts		Undergraduates		Graduates	
				Hill, Hill, and Lewis			
		1976	1982	1976	1982	1976	1982
1	Retardates are rarely able to adjust in a satisfactory manner outside an institutional setting. (False)	1.3	0	0	7.8†*	5.0	2.6
2	A fall or bump on the head during infancy frequently causes mental retardation. (False)	2.6	5.0	13.1†	13.1†	10.5	13.0
3	The mentally retarded child is usually also mentally ill. (False)	2.7	0	20.8†+	8.9†*	22.2+	9.1+*
4	A retardate is capable of moral decisions. (True)	9.6	15.0	21.4	12.1	30.0+	10.4*
5	The mentally retarded child can always be recognized by a trained observer during the first year of life. (False)	5.3	6.7	19.4	11.1	22.2	6.5*
6	Too much study is never the cause of mental retardation. (True)	9.5	20.0*	30.3	24.4#	10.5	9.1
7	Expert education and training procedures can usually correct mental deficiency. (False)	5.7	0*	39.8†	21.1†*	30.0+	14.3+*
8	The child who is mentally defective frequently becomes an adult of average intelligence. (False)	2.7	5.0	19.8†	12.2	21.1+	14.3
9	The child who is below average intellectually is usually above average physically. (False)	2.7	0	16.2+	8.9†+	0	9.1+*
10	Masturbation leads to mental retardation. (False)	0	0	1.1	0	0	0
11	Exceptionally brilliant parents may have given birth to a mentally defective child. (True)	2.6	1.7	8.0	4.4	0	1.3
12	The mating of two mentally retarded individuals may yield offspring who are of normal intelligence. (True)	0	3.3	9.2†	10.0	0	9.1*
13	A low forehead means a low level of intelligence. (False)	0	0	3.0	4.4	0	2.6
14	Generally, the intelligence quotient of an institutionalized retardate decreases. (False)	61.1	71.1	58.6	52.2	68.4	45.5*
15	Sudden frights or mental shocks to a woman during pregnancy frequently causes mental retardation. (False)	0	1.7	26.5†	7.8*	26.3+	7.8*
16	With the exception of Down Syndrome, the age of the mother is not related to the likelihood of having a mentally retarded child. (False)	41.1	55.0*	58.6†	50.0	52.6	44.2

Note. †Undergraduates had significantly more misconceptions than experts did ($p < .05$). +Graduates had significantly more misconceptions than experts did ($p < .05$). #Undergraduates had significantly more misconceptions than graduates did ($p < .05$). *A significant change occurred ($p < .05$).

Table 2. *Percentage of Incorrect Responses to Statements About Mental Retardation by the Three Student Groups* 22

	Students with no experience and no courses*		**Students with courses but no experience***		**Students with experience but no courses***	
			Hill, Hill, and Lewis			
	1976 (n = 19)	1982 (n = 30)	1976 (n = 60)	1982 (n = 18)	1976 (n = 21)	1982 (n = 27)
1	0	10.0	0	11.1	0	3.7
2	19.0	10.0	14.0	11.1	10.0	18.5
3	19.0	3.3	30.0	16.7	14.0	7.4
4	40.0	10.0	31.0	0	33.0	14.8
5	21.0	6.7	21.0	11.1	21.0	7.4
6	40.0	26.7	32.0	22.2	45.0	25.9
7	53.0	23.3	50.0	27.8	45.0	14.8
8	19.0	10.0	20.0	16.7	14.0	3.7
9	20.0	10.0	14.0	0	20.0	7.4
10	0	0	2.0	0	0	3.7
11	19.0	3.3	8.0	0	14.0	7.4
12	19.0	3.3	12.0	5.6	14.0	14.8
13	0	3.3	3.0	0	0	11.1
14	56.0	60.0	57.0	55.6	57.0	40.7
15	19.0	10.0	25.0	16.7	10.0	3.7
16	69.0	46.7	59.0	16.7	62.0	15.9

Note. *No statistically significant between-group differences at $p < .05$.

Hill et al. (1976) reported a dramatic decrease in the number of incorrect responses to statement 1, dealing with the ability of mentally retarded people to adjust outside an institutional setting, in contrast to Mahoney and Pangrac's (1960) finding that 42% of sampled seniors and 67% of sampled freshmen answered this question incorrectly. My findings in the current study generally confirm those of Hill et al., although my undergraduate sample showed a significant increase in incorrect responses.

In both the present study and that of Hill et al. (1976), the experts agreed on most items but graduate and undergraduate students held several misconceptions about mental retardation. However, I found that the general public, as represented by the undergraduate group, was somewhat better informed compared to the group surveyed in 1976. The greatest degree of significant change occurred in the graduate group, where six of the eight changes (statements 3, 4, 5, 7, 14, and 15) reflect a positive direction. A decrease in misconceptions was also noted in relation to statements 3, 7, and 15 between the two undergraduate groups. Only one substantial improvement was found for experts (statement 7), reflecting increased awareness of the educational potential of the mentally retarded. 23

Five statements (1, 6, 9, 12, and 16) elicited a greater degree of incorrect responses in this study than in previous investigations. Misconceptions increased in the graduate group regarding items 9 and 12, reflecting

misunderstanding of the physical and genetic aspects of mental retardation. The undergraduate sample reflected an increase in misconceptions on statement 1 in comparison with their counterparts in Hill et al. (1976), indicating that they are confused about the ability of intellectually disabled individuals to adjust outside institutional settings. Experts' responses to statements 6 and 16 displayed a surprising lack of understanding of the etiology of mental retardation. In fact, statement 6 produced more incorrect answers in this study than in previous ones: Mahoney and Pangrac (1960) reported that 25% of seniors responded inappropriately, Nixon (1925) found that 16% of students agreed with the item, and Hill et al. reported that 17% of their total sample agreed with the statement. I observed a 1% increase in misconceptions on this statement over the total sample; however, it is perplexing that the significant increase of 10.5% in incorrect responses to this item is between the two groups of experts. It is unclear whether this is attributable to the item wording or a widespread misconception.

Implications

Although the population may be somewhat better informed about mental retardation now than 6 years ago (statements 3, 4, 5, 7, 14, and 15), many of the misconceptions about mental retardation persist (statements 1, 6, 9, 12, 14, 16). Continued efforts in educating college students and the general public are warranted.

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