ATTITUDES TOWARD THE AGED OF PERSONS UNDER AND OVER THE AGE OF FORTY

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Abstract

An analysis of attitudes toward persons '65 years or older' yielded five factors: Integrity, Fortitude, Social Appeal, Dependability, and Open-mindedness. When the 716 respondents were divided into those aged 40 and over and those under 40, ratings by the older respondents yielded two additional factors: Competence and Reflectiveness. Analyses by sex showed Integrity accounting for the greatest variance in the ratings by females while Social Appeal accounted for the greatest variance in the ratings by males. An unfavourable stereotype of the older person was manifested in the negative pole of Open-mindedness (Rigidity). Positive attitudes toward the elderly were manifested in the variables comprising the first four factors, but this positive stereotype is rarely reported in the literature.

Résumé

Une analyse factorielle des attitudes vis-à-vis des personnes de 65 ans et plus a permis d'isoler cinq facteurs: Intégrité, Force morale, Attrait social, Fiabilité et Ouverture d'esprit. En divisant les 716 sujets en deux groupes suivant qu'ils avaient moins de 40 ans ou 40 ans et plus, on a observé, chez les plus vieux, deux facteurs additionnels: Compétence et Réflexion. Des analyses selon le genre ont démontré que l'Intégrité expliquait le plus de variance dans les réponses des femmes tandis que l'Attrait social rendait compte de plus de variance dans les réponses des hommes. Un stéréotype défavorable quant aux personnes âgées s'est manifesté au pôle négatif de l'Ouverture d'esprit (Rigidité). Bien que rarement évoquées dans les recherches connues, des attitudes positives vis-à-vis les personnes âgées sont apparues au niveau des variables qui composent les quatre premiers facteurs.

The literature on attitudes toward older persons has generally reported prejudicial stereotypes (Jabs-Kriegsmann, 1977; Sohnsen & Smith, 1978). Such stereotypes have been reported among men and women (McTavish, 1971; Weinberger & Milham, 1975) and among

Contributions of data for the study were made by Dr. D. Krebs of Simon Fraser University; Dr. G. Nelson, U.B.C., Faculty of Education; Dr. I. Olson and Dr. J.E. Michael of Vancouver City College; and Sara Pawson of Douglas College. Additional assistance and consultation was received from Dr. Miriam E. Bunt, University of Windsor and Dr. G.W. Russell, University of Lethbridge. This assistance is gratefully acknowledged and appreciated.

Financial support for the study was received from the UBC-HSS Grants Committee, 1978, 1980, and 1981 and from the Humanities and Social Sciences Research Council, 1979, during the Fellowship leave of E.I. Signori, and YEPU-B.C. Department of Labour project grants 1978-80.

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professional groups (Cicchetti, Fletcher, Lerner & Coleman, 1973; Weinberger & Milham, 1975; Longino & Kitson, 1976). Recent investigators have approached aging as a multidimensional process and have suggested that the attitudes expressed toward older persons are also therefore multi-dimensional in structure. Rosencranz and McNevin (1969) and O'Connell and Rotter (1979) have reported the presence of a three-factor structure upon which older persons are perceived more negatively than younger people. These factors are: Instrumental-Ineffective, Autonomous-Dependent and Personal Acceptability-Unacceptability.

In contrast to the negative findings above, other researchers have reported more positive images of the older person held by both the young (Thomas & Yamamoto, 1975; Ivester & King, 1977; Signori, Butt & Kozak, 1977; Note 1) and by older persons themselves (Signori & Kozak, 1979). A recent study by Signori, Butt and Kozak (1980), in which agematched males and females under 40 rated people "65 years of age and over" on 69 bipolar scales, yielded five factors: Integrity. Fortitude, Social Appeal, Dependability, and Open-mindedness. Of these, the usual negative picture of older persons was concentrated at the conservative pole of the last factor, Open-mindedness. The first four factors pointed to essentially positive impressions of the older person as indicated by the average (α) variable ratings comprising each factor. These findings differ from the three factors presented by Rosencranz and McNevin (1969) who employed a smaller number of rating scales (32). The present study reports an extension of the earlier study by Signori et al., (1980) in that it includes additional data obtained from respondents 40 years and older. These were factor analyzed separately.

Method

Participants

Participants in the entire study (N=716)included the 456 age-matched males and females under the age of 40 from the earlier study (Signori *et al.*, 1980) and 260 male and female adults 40 years of age and over from additional study. The mean ages of the males and females were 23.8 and 23.7 years of age respectively for the younger group and 53.3 and 53.7 years of age for the older group. The overall population of participants ranged in age from 14 to 91 years, with very few participants at either extreme.

Measurements

All participants were asked to rate a reference group described as "people 65 years or older" on 69 bipolar Likert-type scales. The scales, described elsewhere (Signori *et al.*, 1980), were constructed from previous studies on prejudice toward minority groups (Signori, Sampson & Rempel, 1968) and from the traits used by older people to describe themselves (Signori & Kozak, 1976; Note 2). Support for the validity of the scales in socio-cultural research is demonstrated in significant findings from previous studies (Butt & Signori, 1976).

Analyses and Results

A factor analysis (Halm, 1973) with multiple R^2 in the diagonals and varimax rotation on the total sample yielded the same five factors found in the previous study (Signori et al., 1980): Integrity, Fortitude, Social Appeal, Dependability, and Openmindedness (Table 1). The criterion used to determine the number of factors was that each factor have an eigenvalue greater or equal to one.

Table 1 Factors, Loadings, and Mean Trait Ratings for

Variable	Factor	I: Integrity
	Loading	Mean Trait Rating
Kind, gentle	.64	5.29
Well-mannered, lovely people	.61	5.17
Truthful, honorable	.61	5.49
Mature, adjusted	. 59	5.37
Controlled, disciplined	.57	5.32
Possess dignity, self-respect	. 54	4.64
Agreeable, understanding	.54	4.64
Wholesome, harmless	.53	5.28
Sacrificing, giving	. 49	5.14
Careful, cautious	.48	5.58
Intelligent, bright	.47	5.00
Sociable, friendly	.46	5.15
Sane, sensible	. 46	5.35
Honest, trustworthy	.42	5.51
Modesty, humility	.40	4.73
Frank, forthright	.40	4.91
Cheerful, optimistic	.40	4.51
Organized, coordinated	. 38	4.68

Eigenvalue: 18.35; Percentage of variance: 26.59.

Table 1 (continued) Factors, Loadings, and Mean Trait Ratings for Total Group (N = 716)

Variable	Factor II: Fortitude			
	Loading	Mean Trait Rating		
Strong, vigorous	. 62	3.93*		
Healthy, well	.62	4.11		
Determined, ambitious	.60	4.51		
Active, energetic	.58	4.20		
Assertive, aggressive	. 58	4.23		
Involved, participating	. 54	4.17		
Enthusiastic, zestful	.53	4.42		
Independent, self-sufficient	.51	4.63		
Tough-minded, self-reliant	.49	٤.53		
Venturesome, uninhibited	. 46	4.19		
Contented, happy	. 45	4.54		
Unworried, secure	. 44	4.22		
Rich, influential	. 43	4.04		
Trained, skilled	.43	4.70		
Competent, professional	. 42	4.59		
Dominant, overbearing	. 40	4.37		
Courageous, brave	. 37	4.56		
Confident, reliant	. 36	4.80		

Table 1 (continued) Factors, Loadings, and Mean Trait Ratings for Total Group (N = 716)

Variable	Factor IV: Dependability		
Variable	Loading	Mean Trait Rating	
Restrained, temperate	. 54	4.83	
Reliable, responsible	.51	5.41	
Modest, self-depreciating	.47	4.45	
Conscientious, scrupulous	.43	5.11	
Helpful, cooperative	.41	5.16	
Reticent, discreet	. 37	4.18	
Quiet, placid	. 34	4.75	
Tolerant, patient	.42	4.60	
Flexible, persuasible	.55	3.57*	

Eigenvalue: 1.46; Percentage of variance: 2.11.

Eigenvalue: 3.66; Percentage of variance: 5.30.

		Tab	le 1 (continue	d)				
Factors, Loadings	, and	Mean	Trait	Ratings	for	Total	Group	(N	716)

Variable	Factor III: Social Appeal			
	Loading	Mean Trait Rating		
Delightful, exquisite	.64	4.79		
Enhances, advances	.60	4.79		
Intuitive, insightful	.55	4.56		
Sensitive, appreciative	.55	5.20		
Talented, gifted	.54	4.74		
Clean, well-groomed	.51	5.10		
Productive, industrious	. 49	4.68		
Charming, pleasing	.44	4.56		
Humourous, witty	.43	4.89		
Idealistic, high-minded	.42	4.23		
Creative, imaginative	. 38	4.47		
Efficient, methodical	. 36	4.78		

Eigenvalue: 1.91; Percentage of variance: 2.76.

Table 1 (continued)
Factors, Loadings, and Mean Trait Ratings for Total Group (N = 716)

Variable	Factor V: Open-mindedness			
	Loading	Mean Trait Rating		
Universal, broad-minded	. 36	2.59*		
Liberal, radical	. 36	1.51*		
Unhabituated, unaddicted	.24	2.50*		
Promiscuous, over-sexed	. 28	3.39*		
Objective, impractical	. 32	3.73*		
Generous, altruistic	. 38	4.63		
Trusting, adaptable	. 38	4.50		

Eigenvalue: 1.31; Percentage of variance: 1.90.

"Ratings below "4" place people 65 and over at the opposites of the labels noted in the table (on a seven-point scale). Those traits on which the elderly are rated below average are: strong, vigorous vs weak, delicate; universal, broadminded vs clannish, narrow-minded; liberal, radical vs conservative, traditional; unhabituated, unaddicted vs habituated, addicted; promiscous, over-seved vs frigid, under-seved; objective, impractical vs subjective, personal and flexible, persuasible vs rigid, stubborn.

A separate factor analysis of the ratings from the older group (n=260) yielded a similar five factor structure along with two additional factors identified as Competence and Reflectiveness (Table 2). Separate factor

analyses of male and female data revealed equivalent five factor solutions with a reordering of the first factor. For males the first factor was Social Appeal while for females it was Integrity.

Table 2 Factors, Loadings, and Mean Trait Ratings for Raters Aged 40 and over (N = 260)

Variable	Factor I: Integrity			
	Loading	Mean Trait Rating		
Kind, gentle	.67	5.33		
Truthful, honorable	.65	5.52		
Well-mannered, lovely people	.63	5.36		
Frank, forthright	.61	5.06		
Careful, cautious	.57	5.59		
Mature, adjusted	. 56	5.49		
Harmless, wholesome	. 55	5.35		
Intelligent, bright	.55	5.20		
Possess dignity, self-respect	.53	5.53		
Agreeable, understanding	.52	4.83		
Sociable, friendly	.51	5.42		
Sacrificing, giving	.51	5.25		
Controlled, disciplined	.51	5.31		
Cheerful, optimistic	.50	4.77		
Fragrant, aromatic	.47	4.83		
Cooperative, helpful	.47	5.22		
Sane, sensible	.43	5.29		

Eigenvalue: 20.07; Percentage of variance: 30.53.

Table 2 (continued) Factors, Loadings, and Mean Trait Ratings for Raters Aged 40 and over (N = 260)

Variable	Factor II: Fortitude			
	Loading	Mean Trait Rating		
Determined, ambitious	.69	4.70		
Strong, vigorous	.68	4.32		
Energetic, active	.62	4.52		
Assertive, aggressive	.61	4.34		
Zestful, enthusiastic	.58	4.74		
Independent, self-sufficient	. 56	5.07		
Creative, imaginative	. 55	4.54		
Healthy, well	.53	4.43		
Tender-minded, over-protected	. 52	4.58		
Rich, influential	. 52	4.24		
Involved, participating	.51	4.49		
Brave, courageous	.47	4.86		
Objective, impersonal	.46	4.15		
Humourous, witty	. 44	4.96		
Venturesome, uninhibited	.43	4.53		
Contented, happy	.43	4.73		
Flexible, persuasible	.42	3.91*		

Eigenvalue: 3.45; Percentage of variance: 5.00.

Table 2 (continued) Factors, Loadings, and Mean Trait Ratings for Raters Aged 40 and over (N = 260)

Loading .61	Mean Trait Rating 4.90		
	4.90		
	4.90		
.60	4.82		
.56	4.59		
.54	5.24		
.52	4.66		
.50	4.72		
. 49	5.26		
.47	4.77		
. 38	4.75		
	.54 .52 .50 .49 .47		

Eigenvalue: 2.05; Percentage of variance: 2.97.

Table 2 (continued) Factors, Loadings, and Mean Trait Ratings for Raters Aged 40 and over (N = 260)

Variable	Factor IV: Dependability		
	Loading	Mean Trait Rating	
Reliable, responsible	. 57	5.61	
Restrained, temperate	.53	5.02	
Conscientious, scrupulous	.51	5.25	
Honest, trustworthy	. 50	5.62	
Quiet, placid	. 48	4.81	
Stable, well-balanced	.4"	5.18	
Productive, industrious		4.83	
Competence, professional	.41	4.92	
Modest, self-depreciating	.40	4.72	
Reliant, confident	. 37	5.02	

Eigenvalue: 1.57; Percentage of variance: 2.27.

Table 2 (continued) Factors, Loadings, and Mean Trait Ratings for Raters Aged 40 and over (N = 260)

Mean Trait Rating
4.94
4.90
4.97
4.95
4.87
3.72*

Eigenvalue: 1.37; Percentage of variance: 1.99.

Table 2 (continued) Factors, Loadings, and Mean Trait Ratings for Raters Aced 40 and over (N = 260)

Variable	Factor VI: Reflectiveness		
	Loading	Mean Trait Rating	
Reticent, discreet	.45	4.59	
Serene, relaxed	. 40	4.74	
Patient, tolerant	. 39	4.87	

Eigenvalue: 1.26; Percentage of variance: 1.83.

Table 2 (continued) Factors, Loadings, and Mean Trait Ratings for Raters Aged 40 and over (N = 260)

Variable	Factor VII: Open-mindedness		
	Loading	Mean Trai ^t Rating	
Unhabituated, unaddicted	. 44	2.68*	
Universal, broadminded	.43	2.68*	
Liberal, radical	. 31	1.63*	

Eigenvalue: 1.08; Percentage of variance: 1.56

*Ratings below "4" place people 65 and over at the opposites of the labels noted in the table (on a seven-point scale). Those traits on which the elderly are rated below average are: flexible, persuasible vs rigid, stubborn; promiscuous, over-sexed vs frigid, under-sexed; unhabituated, unaddicted vs habituated, addicted; universal, broadminded vs clannish, narrow-minded; liberal, radical vs conservative, traditional.

Hotelling T^2 comparisons by sex on mean factor scores revealed no significant differences whereas highly significant differences were found at different age levels, including cross-sexed comparisons (Table 3).

Table 3 Hotellings T² on Overall Mean Factor Scores Between Eight Comparison Samples (N = 716)

Companying Complex	Mean Factor Scores		
Comparison Samples	F	р	
1 Females (N = 370) vs all Males (N = 346)	1.10	. 358	
Females 40 and over (N = 136) vs Males 40 and over (N = 124)	.24	.9465	
Females under 40 (N = 234) vs Males under 40 (N = 222)	1.75	.120	
All subjects 40 and over (N = 260) vs all subjects under 40 (N = 456)	16.25	.000	
Females 40 and over (N = 136) <i>vs</i> Females under 40 (N = 234)	10.93	.0000	
Males 40 and over (N = 124) <i>vs</i> Males under 40 (N = 222)	6.03	.0000	
Females 40 and over (N = 136) vs Males under 40 (N = 222)	8.20	.0000	
Males 40 and over (N = 124) vs Females under 40 (N = 234)	8.54	.0000	

Student t-tests on the mean factor scores (Table 4) showed that younger adults (under 40) differed from older adults (40 and over) in the attributions made to old people on the factors of Fortitude, Dependableness, and Open-mindedness. Again, sex of rater by age group was not a significant variable.

Comparison Samples	Integrity	Fortitude	Social Appeal	Depend- ability	Open- mindednes
All Females (N + 370) oc all Males (N + 346)	2267	-1.2502	-1.5807	. 301 3	1.0815
Females 40 and over (N + 136) 20 Males 40 and over (N + 124)	. 3056	. 8565	5281	.2792	.1812
Females under 40 (N = 234) vø Males under 40 (N = 222)	0416	8873	-2.3850*	.6659	1.4965
All subjects 40 and over (N = 260) :a all subjects under 40 (N = 456)	r .0793	5.0098***	3685	4.5037***	5.6342**
Females 40 and over (N = 136) tra Females under 40 (N = 234)	.2133	3.6969**	-1.6116	3.8677**	4.4523**
Males 40 and over (N = 124) ne Males under 40 (N = 222)	1165	3.3638**	1.0435	2.6563*	3.1136*
Females 40 and over (N = 136) ::e'Males under 40 (N = 222)	.2427	4.4810***	.4804	2.9469*	3.3439*
Males 40 and over (N = 124) the Females under 40 (N = 234)	1529	2.6126*	9831	3.5226**	4.5955**

•; < .01; ••; < .001; •••; < .0001.

Discussion and Conclusion

The major finding of the present study parallels a previous finding reported by the authors (Signori et al., 1980). The five factors Integrity, Fortitude, Social of Appeal. Dependability, and Open-mindedness are apparently used by both young and older groups to describe the social image of the older person. The factor structure from our previous analysis of the young group alone and the present one, which includes the older group, yielded the same five factors with eigenvalues over one. However, the analysis of the older sample, by itself, yields two additional factors with eigenvalues over one: Competence and Reflectiveness. This suggests that the longer experience and maturity of the older raters allows them to make more refined differentiations of the qualities in older people which are reflected in greater statistical variance. Thus, their attitudinal structure is reasonably different from that of less experienced younger persons under the age of 40.

Rosencranz and McNevin (1969) reported only three factors in their study from the factor analysis of 32 variables. These dimensions were described as: Instrumental-Ineffective, Autonomous-Dependent, and Personal Acceptability-Unacceptability. An examination of the variable identifications contained in the paper shows some overlap with the three major factors of the present study. However, several of the trait allocations yielded in the Rosencranz and McNevin study might be better placed among the fourth and fifth factors of the present study. This discrepancy suggests that their 32 variables do not provide sufficient scope for measuring or accommodating the larger factor content existing in this area of attitude research. A further insight is found in a recent study by Holtzman, Beck and Kerber (1979; Note 3) who reported that the three factors found by Rosencranz and McNevin were psychometrically forced, with a four factor structure being more amenable to the ratings of the 32 scales. This fourth factor was tentatively labelled as Integrity-Despair after Erikson's (1963) last stage of life and seems congruent with the first factor of the present study.

Contrary to Petty's (1977) finding that older adults were significantly more negative than younger adults toward older people, the present study found attitudes to be largely positive or neutral, but more so by the older than younger participants. Of the 69 bipolar scales studied, the younger participants (in the 1980 study) rated older adults as: rigid, frigid, habituated, clannish, poor, conservative, weak, unhealthy, gossipy and subjective. The older participants in the present study described the elderly as: rigid, frigid, habituated, clannish and conservative. For them the traditional negative stereotype was therefore of narrower scope than traditionally cast. Overall the ratings have favourable mean scores with the older raters rating more favourably than the young raters. Older observers may become more tolerant and accepting of deficits in others as those deficits become probabilities themselves. The acknowledgment in of biological decline in older persons by younger persons was even more impressively demonstrated in written reports by children on how they viewed the older person (Lister, Signori & Kozak, 1979; Note 4). Differences in the ratings assigned to older persons by age of raters is clearly evident from Table 3, and age rather than sex is the crucial variable accounting for the differences reported. In terms of mean factor scores these age differences are found on the three factors labelled: Fortitude, Dependability, and Openmindedness (Table 4). Thus the differences in the perceptions of younger and older observers occur on the qualities of persistence, consistency and degree of flexibility. Persons 40 and over perceive the elderly more positively on all.

between males and females suggests that females may be more partial to evaluating older persons in terms of moral and ethical values whereas males may perceive more in terms of glamour or physical attractiveness.

In conclusion, what must be emphasized is the positive image that all age groups have of the older person. Despite the differences in emphasis shown between the perceptions of older and younger adults on three of the major factors they both perceive the older person very positively. The elderly are described for example, as: kind, well-mannered, truthful. mature, controlled. wholesome, sacrificing, careful, intelligent, sociable, sane sensitive and clean. Such traits are certainly not those of an undesirable person but instead present a picture of a caring, sensitive individual who, though probably affected physically by the aging process, nevertheless is highly capable, in terms of his or her ability, to transcend the biological limitations and restrictions imposed as a consequence of aging. To focus mainly upon the negative physical side of aging is to overemphasize the perception of biological differences between individuals. Though most people are observant of such physical truths, there are at the same time social-psychological qualities perceived which older persons are known to possess. The more advanced maturity of the older observer is required to both recognize and appreciate these qualities. Only by drawing attention to positive qualities will the general such misconceptions recorded in our literature about the older person be dispelled.

Reference Notes

- 1. Signori, E.I., Butt, D.S. & Kozak, J.F. Attitudes toward the aged. Paper presented at the Annual Meeting of the Canadian Association on Gerontology, Montreal, 1977.
- 2. Signori, E.I. & Kozak, J.F. Study of attitudes of the elderly toward aging and the aged. Paper presented at the Annual Meeting of the Canadian Association on Gerontology, Vancouver, 1976
- 3. Holtzman, J.M., Beck, J.D. & Kerber, P.E. Dimensional aspects of attitudes toward the aged. Paper presented at the 32nd Annual Scientific Meeting of the Gerontological Society, Washington, D.C., 1979.
- 4. Lister, A., Signori, E.I. & Kozak, J.F. Children's attitudes of the elderly toward aging and the aged. Paper presented at the Annual Meeting of the Canadian Association on Gerontology, Edmonton, 1978.

References

Butt, D.S., & Signori, E.I. The social image of disadvantaged groups. Social Behaviour and

The difference in first factor priority

Personality, 1976, 4. 145-151.

- Cicchetti, D.V., Fletcher, C.R., Lerner, E., & Coleman, J.V. Effects of a social medicine course on the attitudes of medical students toward the elderly: A controlled study. Journal of Gerontology, 1973, 38(3), 370-373.
- Erikson, E.H. Childhood and society. (2nd ed.). New York: Norton, 1963.
- Halm, J. UBC Fan: Factor Analysis. Documentation supported by the Computing Centre of the University of British Columbia, 1973.
- Ivester, C., & King, K. Attitudes of adolescents toward the aged. *The Gerontologist*, 1977, *17*(1), 85-89.
 - os-Kriegsmann, M. The image of old people in German magazine fiction. Zeitschrift fur Gerontologie, 1977, 10(5), 373-383.
- Longino, C.F., & Kitson, G.C. Parish clergy and the aged: Examining stereotypes. Journal of Gerontology, 1976, 31(3), 340-345.
- McTavish, D.G. Perceptions of old people: A review of research methodologies and findings. *The Gerontologist*, 1971, 11, 90-101.
- O'Connell, A.N., & Rotter, N.G. The influence of stimulus age and sex on person perception. Journal of Gerontology, 1979, 34(2), 220-228.
- Petty, D.L. An analysis of attitudes and behavior of young adults toward the aged. *Dissertation Abstracts International*, 1977, 38(4-A), 2369.
- Rosencranz, H.A., & McNevin, T.E. A factor analysis of attitudes toward the aged. *The Gerontologist*, 1969, 9(1), 55-59.
- Signori, E.I., Sampson, D.L.G., & Rempel, H. Trait labels for rating socially disadvantaged groups on employment. *Psychological Reports*, 1968, 23, 160-162.
- Signori, E.I., & Kozak, J.F. The needs of the elderly. B.C. Medical Journal, 1979, 21(3), 94-96.
- Signori, E.I., Butt, D.S., & Kozak, J.F. Dimensions in attitudes toward the aged. *Canadian Counsellor*, 1980, 14(2), 88-92.
- Sohnsen, M., & Smith, J. Images of old age in poetry. The Gerontologist, 1978, 18(2), 181-186.
- Thomas, E.C., & Yamamoto, K. Attitudes toward age: An exploration in school-age children. International Journal of Aging and Human Development, 1975, 6, 117-129.
- Weinberger, L.E., & Milham, J. A multi-dimensional, multiple method analysis of attitudes toward the elderly. *Journal of Gerontology*, 1975, 30, 343-348.

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The late Dr. Edro I. Signori was a graduate of the University of Toronto and served with the R.C.A.F. Directorate of Personnel Selection and Research during the war. A professor at U.B.C. since 1949 he participated in projects concerned with drug addiction, alcoholism, spouse personality and marriage, public education, community health, and attitudes toward disadvantaged persons. In more recent years he developed procedures for the assessment of attitudes toward older people and their needs. He interviewed and counselled individuals for educational and industrial vocations as well as persons with personal problems including ex-service personnel, students, workers and older persons.

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