CHAPTER VII

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RESULTS AND DISCUSSIONS
PART A

7.1 INTRODUCTION

The main purpose of this chapter is to analyse the responses of the sample of the young on the attitude scale. The analysis is utilized to achieve some of the objectives and test the hypotheses, already stated in Chapter II. The remaining objectives are discussed in the later chapter while analysing the data of Part B which deals with the sample of the old. The last hypothesis too is tested therein.

The relevant objectives may be briefly stated again so as to clarify the theme of the analysis. They are as follows :

(i) To measure the attitude of the young (age ranging between 21-40 years) toward the aged.

(ii) To discuss the general trend of the attitude and to find out the relationship between the general trend and the specific behavioural tendencies.

(iii) To see the interrelations between the different areas making up the attitude and to find out the differences in the mean scores of these areas.

(iv) To compare the relationship between the trend of the attitude and the following variables :

(a) Age

(b) Education

(c) Sex

It is also desired to collect some idea of the role played by the other variables that were considered secondary (as stated in Chapter V) in determining the trend of the attitude. These are -

(d) Income

(e) Experience of staying in joint family

(f) Opportunity of staying with old and happy memories of them during childhood.

All these objectives have been found to be achieved by the application of appropriate statistical techniques. They have been illustrated with the help of tables and graphs.

The results and discussions help to test the first four hypotheses as stated in Chapter II, viz.

(i) The attitude of the young toward the aged, in general, will be favourable.

(ii) Within the attitude, apart from the other tendencies constituting the attitude due to the long prevailing cultural norms, the behavioural tendencies will be more favourable.

(iii) The various areas of adjustment covering up the attitude will be independent of one another.

(iv) The variables of age, education and sex will play a significant role in deciding the degree of favourability of the attitude.

7.2 THE TREND OF THE ATTITUDE OF THE YOUNG TOWARD THE AGED

The trend of the attitude was measured by the attitude scale constructed by Thurstone's method of equal-appearing intervals as already described in Chapter III. The main controversy involved in the scoring of such scales is based upon the contention that the scale units are not equidistant at all points. "A unit difference at one place on the scale is not necessarily equal to a unit difference at another place".[1] Selltiz and others have also pointed out the same difficulty, "Thurstone, on the assumption that scales constructed by this method were true interval scales, advocated the use of statistics appropriate to interval scales - the mean and the standard deviation. Other investigators, operating on the more cautious assumptions that the intervals are not

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[1] Krech, D. and Crutchfield, R.S., Theory and Problems of Social Psychology. (Mcgraw-Hill Book Company, Inc., New York, Toronto, London. 1947), P. 226.

truly equal have favoured the use of the median as appropriate to ordinal scales".[1]

Such type of scales, however, have proved their own advantages in certain respects and are in wide use. They have become considerably popular and even those who pointed out the objections initially have agreed to it that it is possible for them to constitute reasonably satisfactory ordinal scales. As agreed by Krech and Crutchfield, "If the scale is reliable, it is possible to say with assurance that individual A is more extreme than individual B, who is in turn, more extreme than individual C, and so on. There is some justification, moreover, for the averaging of the scale scores of groups of people, so that one group can be compared with another group".[2]

As is customary, the score on the total scale was computed for each subject in terms of the median value. Besides this median on the total scale, the median of those items that referred to action tendencies alone was noted. Finally, the scale was divided into four main areas as mentioned in Chapter III and the individual median of each area was also noted separately.[3]

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[1] Selltiz, C., Jahoda, M., Deutsch, M. and Cook, S.W., Attitudes, (edited by Jahoda, Marie and Warren, Neil. Penguin Books, 1966), P. 308.

[2] Krech, D. and Crutchfield, R.S., Op.cit., P. 226.

[3] See Appendix I.

As far as the general trend of the attitude of the young toward the old was concerned the scores on the total scale alone were made use of. The trend was found to be adequately favourable as seen in Table 7.1.

Table 7.1. The Trend of the Attitude of the Young Toward the Aged

	N	Mean	SD	Range
Males	416	8.19	0.91	3.99 to 9.21
Females	415	8.19	1.00	3.13 to 9.21
Total	831	8.19	0.95	3.13 to 9.21

These results show that the general trend of the attitude of the total sample is 2.19 scale units above the point of neutrality viz. 6.00. The differences between the two sexes are slight. Although the range of the scores is wide, it being lopsided towards favourability the effect is more towards favourableness. This is also clear from the low value of SD which shows the distribution of the scores to be homogeneous.

To get a clearer picture of this favourable attitude, the mean values of the four different areas were also found out as shown in the Table 7.2.

Table 7.2. The Trend of the Attitude of the Young Toward the Aged in the Four Different Areas

Areas	Appearance, Personality and Health		Social Status & Emotional Problems		Financial Status and Family Relationships		Religious and Moral Problems	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Males	6.33	1.87	8.54	1.46	8.43	0.80	7.97	1.70
Females	6.46	1.81	8.56	1.51	8.44	0.84	7.85	1.77
Total	6.39	1.85	8.55	1.57	8.44	0.83	7.91	1.74

The above table shows that the mean scores on the four different areas making up the attitude differ and that the trend is not equally favourable in all the areas. Moreover, in the first area of 'Appearance, Personality and Health', it is more or less neutral, being slightly above the point of neutrality, viz. 6.00. That it should be so, for this area is no wonder. It is the fact of experience that the appearance of the aged clearly expresses the various ravages of time. It lacks the freshness, charm and grace of youth. No inferences can be made about their personality on the basis of this part of the work. But since the old belong to a different generation, their manner and outlook are more likely to differ from those of the young. This is enough reason for the young to view the aged as having strange personality. Similarly, old age is a period of deteriorated

health. The aged generally have numerous health complaints and disabilities. Taking these points into consideration, it appears plausible that the trend of attitude in this area is neutral - 6.39, in spite of the favourable general trend - 8.19, as seen from Table 7.1.

The second area of 'Social Status and Emotional Problems' shows evidence for a favourable attitude toward the aged. The mean score here is 8.55 which is slightly higher than the mean score of the general trend - 8.19. This shows that the old in the Indian society are still enjoying considerable social status. Similarly, the same area expresses the attitude toward the emotional problems of the aged. The degree of favourability in this area also suggests that the aged receive adequate emotional acceptance from the younger members of the society. As far as the social reactions and the emotional responses of the aged are concerned, the young hold favourable attitude toward them.

The mean score in the area of 'Financial Status and Family Relationships' is equally favourable in the same way. It is 8.44. This too is slightly higher than the mean score of the general trend as seen in Table 7.1. These results show that the financial status of the old does not cause the young to hold any grudge against the aged. Actually, the aged have a lower financial status

due to retirement or disability to work. But the attitude of the young is not seen to be influenced by this fact. The position of the aged within the family is seen to be secure, as the young look toward them quite favourably as the members of the family. They do not show reluctance to accept the old relative as a member of the family. This is a point, highly in favour of the old. In spite of their problems of appearance, personality and health, they have more chances of having a secure place within the families of their younger relatives.

In the area of 'Religious and Moral Problems', the attitude is seen to be fairly favourable. But the mean score 7.91 falls slightly lower than the mean score of the general trend - 8.19. The aged people in India are generally found to be religious-minded. But with the new scientific progress and technological changes the youth is fast developing more objective and factual concepts about religious demands. As a result, their tendency is towards neglecting some conventional rituals, at times. Naturally their clash with the orthodox religious views of the old must have been slightly expressed in their attitude.

Thus the attitude is seen to be favourable in all the different areas. In the three areas of 'Social Status and Emotional Problems', 'Financial Status and

Family Relationships' and 'Religious and Moral Problems', it is seen to be adequately high while in the area of 'Appearance,Personality and Health' the degree of favourability is seen to be not so marked. This proves the first hypothesis that the young hold on the whole a favourable attitude toward the aged. This can be seen from Bar-Chart I.

7.3. BEHAVIOURAL TENDENCIES

The next objective was to explore the behavioural tendencies apart from the total attitude as such. Attitude is a complex composite of a number of tendencies. Some are cognitive, some emotional and motivational whereas others refer to the behavioural or action tendencies. Although the various tendencies are partly interrelated, the action tendencies stand out uniquely as they are subject to numerous pressures. Of main importance among these pressures is the pressure exerted by the cultural norms. In a country like India where gerontocracy prevailed till recently, the cultural norms are likely to make demands for favourable action tendencies, apart from the total attitude valence.

The results as seen from Tables 7.1 and 7.2 indicate a favourable attitude in general. However, it is not remarkably favourable. The objective was to see the difference between the general attitude in its complex

form and the behavioural tendencies exclusively. Ultimately the attitude and its measurement is of value because it is a determinant of the behavioural tendency towards the old. This attitude mainly decides the treatment the old receive at the hands of the young. The scores made by the subjects on the items referring to the behavioural tendencies alone were viewed separately and compared with the scores made on the total attitude scale. The trend of the behavioural tendencies separately is shown in Table 7.3 in terms of the mean score.

Table 7.3. The Trend of the Behavioural Tendencies of the Young Toward the Aged

	N	Mean	SD	Range
Males	416	8.66	1.44	3.08 to 10.33
Females	415	8.67	1.43	5.17 to 10.33
Total	831	8.67	1.44	3.08 to 10.33

Comparing the results of the above table with those of Table 7.1, it can be seen that the mean of these action tendencies is higher than the mean of the total attitude. This is also seen in Bar-Chart I. The difference is 0.48 scale unit. The standard deviation has been found to be 1.44. The range is very wide. To find out the significance of the difference of these means, the 't' test was applied, the results of which are shown in Table 7.4.

Table 7.4. The Mean Scores and 't' Value of the Total Attitude and the Behavioural Tendencies

	Total Attitude	Behavioural Tendency
Mean	8.19	8.67
SD	0.95	1.44
S.E.	0.03	0.05
't'	8.00 *	

* Significant at both 0.05 and 0.01 level.

Looking to the 't' value that is significant, it can be inferred that the behavioural tendencies are even more favourable than the total attitude content. This leads to the conclusion that the treatment the old receive at the hands of the young is reasonably favourable toward them. These results test and support the second hypothesis that within the attitude, apart from the other tendencies constituting the attitude, the behavioural tendencies would be more favourable. This must be due to the long prevailing gerontocratic practices and subsequent cultural norms of Indian society.

7.4. AREAS OF THE ATTITUDE

The scores of the four different areas of the scale were further analysed. A detailed picture of the attitude

can be thus obtained. A favourable attitude does not necessarily mean that it is favourable in all the aspects. It may be quite favourable in one area, slightly so in another and at times even a bit unfavourable in the third area so far as a single subject is concerned. By comparing the scores and discussing the significances in the difference between them, a composite picture of the total attitude can be obtained.

As the four areas of the attitude comprised the total attitude, interrelations between these areas were desired to be known in accordance with one of the objectives. To get a rough estimate, an attempt was made initially to draw a representative sample from the data in all the 24 cells.[1] Selecting every fifth subject from the total number of subjects of each cell, a sample of 157 subjects was drawn. The mean scores of this sample in each area were approximately similar to the mean scores for the total sample in the corresponding areas. The sample was considered to be representative of the original total sample. The correlations of the scores in the representative sample in the four different areas were computed. The results are shown in Table 7.5 (A) and (B).

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[1] See Appendix I.

Table 7.5 (A) Comparison of the Representative Sample with the Total Sample

Area	Representative Sample		Total Sample	
	Mean	SD	Mean	SD
1. Appearance, Personality and Health	6.35	1.81	6.39	1.85
2. Social Status and Emotional Problems	8.54	1.45	8.55	1.57
3. Financial Status and Family Relation-ships	8.60	0.70	8.44	0.83
4. Religious and Moral Problems	7.95	1.73	7.91	1.73

Table 7.5 (B) Correlations Between the Four Areas

r_1 between areas 1 and 2 = 0.18
r_2 between areas 1 and 3 = 0.04
r_3 between areas 1 and 4 = 0.28
r_4 between areas 2 and 3 =-0.08
r_5 between areas 2 and 4 =-0.24
r_6 between areas 3 and 4 = 0.14

Testing these values of 'r' against null hypothesis for N = 157 and degrees of freedom = 155, it is found that r_2, r_4 and r_6 values are not significant at both 0.05 and 0.01 level. r_1 is significant at 0.05 level

only while r_3 and r_5 are significant at 0.05 level and barely significant at 0.01 level. Of these two correlations r_5 is negative.

These results do not show any noteworthy correlations between the various areas constituting the attitude. The correlation between the area of 'Appearance, Personality and Health' and of 'Social Status and Emotional Problems' cannot be taken into account as it is not significant at 0.01 level. The correlation between the area of 'Appearance, Personality and Health' and of 'Religious and Moral Problems' is barely significant at 0.01 level. This shows that though slight, some positive correlation exists between the two areas. The correlation between the area of 'Social Status and Emotional Problems' and the area of 'Religious and Moral Problems' is negative and again barely significant. Thus the correlations between the different areas are seen to be negligible. The representative sample was used for the correlation purpose alone.

To find out the significance in the difference between the mean scores of the total sample in the different areas, the 't' test was applied, the results of which are shown in Table 7.6.

Table 7.6. The Central Tendencies and the 't' Values of the Four Areas.

Area	Appearance, Personality and Health	Social Status & Emotional Problems	Appearance, Personality and Health	Financial Status & Family Relationships
Mean	6.39	8.55	6.39	8.44
SD	1.85	1.57	1.85	0.83
S.E.	0.06	0.05	0.06	0.03
t	25.66*		29.19*	

Area	Appearance, Personality and Health	Religious and Moral Problems	Social Status & Emotional Problems	Financial Status & Family Relationships
Mean	6.39	7.91	8.55	8.44
SD	1.85	1.74	1.57	0.83
S.E.	0.06	0.06	0.05	0.03
t	17.27*		1.77	

Area	Social Status & Emotional Problems	Religious and Moral Problems	Financial Status & Family Relationships	Religious and Moral Problems
Mean	8.55	7.91	8.44	7.91
SD	1.57	1.74	0.83	1.74
S.E.	0.05	0.06	0.03	0.06
t	7.88*		7.94*	

* Significant at both 0.05 and 0.01 levels

Excepting the 't' value between the means of the areas of Social Status and Relationships on the one hand and Financial Status and Family Relationships on the other, all the 't' values between the means of the respective areas were found significant at both 0.05 and 0.01 levels. This shows that the mean scores of these areas differ significantly from one another. This leads to the conclusion that the valence of the attitude differs from area to area.

The difference observed between the total attitude on the one hand and the attitude expressed in each of the areas on the other was also weighed for which the 't' test was further applied to these differences, the results of which have been shown in Table 7.7.

Table 7.7. The 't' Values of the Total Attitude With Each of the Area

	Total Attitude	Total Attitude	Total Attitude	Total Attitude
Mean	8.19	8.19	8.19	8.19
SD	0.95	0.95	0.95	0.95
S.E.	0.03	0.03	0.03	0.03
	with	with	with	with
Area	Appearance, Personality & Health	Social Status and Emotional Problems	Financial Status & Family Relationships	Religious & Moral Problems
Mean	6.39	8.55	8.44	7.91
SD	1.85	1.57	0.83	1.74
S.E.	0.06	0.05	0.03	0.06
t	24.94*	5.65*	5.71*	4.07*

* Significant at both 0.05 and 0.01 levels

The above results show that the mean scores in each of the areas individually differ from the mean score of the total attitude and that these differences are significant in all cases. Thus the third hypothesis about the independence of the various areas of adjustment covering up the attitude is tested.

7.5 EFFECT OF THE VARIABLES - AGE, EDUCATION AND SEX

In connection with the objective of viewing the differential effects upon the attitude of the variables stated in the beginning of the chapter, the technique of analysis of variance was made use of. This is to have an over-all picture of the whole data. The advantages of using analysis of variance for such data may be briefly mentioned.

This technique provides an over-all test of the significance of the difference between two or more means when a large sample as the present one is involved. Moreover, it leads to a definitely improved estimate of sampling error when double or triple or higher-order classification is involved. It permits a refined estimate of error by allowing for variation due to one or more variables when the differences between groups classified on the basis of some other variable are being tested.

Further, the variance technique provides a means of testing whether the influence of one independent variable on the dependent variable is similar for sub-groups formed on the basis of a second independent variable. Any inconsistency becomes clearly apparent. Before the development of the variance technique there was no way of testing such apparent inconsistencies, except when each classificatory characteristic led to just two categories. This deals with the concept of interaction, which is a definite advantage of the technique. It enables the researcher estimate not only the effect of a single variable at a time, but of two or more interacting variables jointly.

Taking these advantages into consideration the data were analysed with this technique. As this type of analysis was pre-planned, the sample was originally defined in terms of the Cells[1] based upon the main independent variables. They were age, education and sex, the first having 4 (A, B, C, D), the second 3 (X,Y,Z) and the third 2 (M, F) groups respectively as stated in Chapter IV. The design of the analysis was 4 X 3 X 2 = 24 Cell factorial design.

After calculating the correction term as $C = \frac{(\Sigma X_1 \ldots\ldots\ldots\ldots X_{831})^2}{831} = 55723.04$, the other effects were computed as follows :

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[1] See Appendix I.

The sum of the squares of the total variance, i.e.

$$SST = \{ \Sigma(X_1)^2 + (X_2)^2 + \ldots\ldots\ldots\ldots (X_{831})^2 \} - C$$

amounted to 756.96.

For knowing the effect of age the Cell design as shown in Table 7.8 was utilised and this variance viz. SS Age was computed as stated in the table after applying the correction term.

Table 7.8. Variance Due to Age (SS Age)

(1)	(2)	(3)	(4)
$\begin{matrix}(MAX)^2 \\ (MAY) \\ (MAZ) \\ (FAX) \\ (FAY) \\ (FAZ)\end{matrix}$	$\begin{matrix}(MBX)^2 \\ (MBY) \\ (MBZ) \\ (FBX) \\ (FBY) \\ (FBZ)\end{matrix}$	$\begin{matrix}(MCX)^2 \\ (MCY) \\ (MCZ) \\ (FCX) \\ (FCY) \\ (FCZ)\end{matrix}$	$\begin{matrix}(MDX)^2 \\ (MDY) \\ (MDZ) \\ (FDX) \\ (FDY) \\ (FDZ)\end{matrix}$
$/_{212}$	$/_{214}$	$/_{196}$	$/_{209}$
12962.43	13621.54	13890.47	15326.68

$$SS\ Age = \frac{(\Sigma(1))^2}{N_1} + \frac{(\Sigma(2))^2}{N_2} + \frac{(\Sigma(3))^2}{N_3} + \frac{(\Sigma(4))^2}{N_4} - C$$

$$= 55801.13 - 55723.04$$

$$= 78.09$$

Similarly, SS Education, the effect due to the variable of education, SS Sex that due to sex differences have been shown in Table 7.9 and Table 7.10 respectively.

Table 7.9. Variance Due to Education (SS Education)

(1)	(2)	(3)
$\begin{bmatrix} MAX \\ MBX \\ MCX \\ MDX \\ FAX \\ FBX \\ FCX \\ FDX \end{bmatrix}^2 / 256$	$\begin{bmatrix} MAY \\ MBY \\ MCY \\ MDY \\ FAY \\ FBY \\ FCY \\ FDY \end{bmatrix}^2 / 278$	$\begin{bmatrix} MAZ \\ MBZ \\ MCZ \\ MDZ \\ FAZ \\ FBZ \\ FCZ \\ FDZ \end{bmatrix}^2 / 297$
18217.91	18427.98	19101.88

$$\text{SS Education} = \frac{(\Sigma (1))^2}{N_1} + \frac{(\Sigma (2))^2}{N_2} + \frac{(\Sigma (3))^2}{N_3} - C$$

$$= 55747.77 - 55723.04$$

$$= 24.73$$

Table 7.10. Variance Due to Sex (SS Sex)

(1) $\begin{bmatrix} MAX & MBX & MCX & MDX \\ MAY & MBY & MCY & MDY \\ MAZ & MBZ & MCZ & MDZ \end{bmatrix}^2 / 416$

27871.72

(2) $\begin{bmatrix} FAX & FBX & FCX & FDX \\ FAY & FBY & FCY & FDY \\ FAZ & FBZ & FCZ & FDZ \end{bmatrix}^2 / 415$

27851.32

$$\text{SS Sex} = \frac{(\Sigma (1))^2}{N_1} + \frac{(\Sigma (2))^2}{N_2} - C$$

$$= 55723.04 - 55723.04$$

$$= 0$$

To know the effect of the first order interaction between Age and Education variables, Age and Sex variables and the Education and Sex variables, Cell designs were arranged as shown in Table Nos. 7.11, 7.12 and 7.13. The computation also has been shown under the tables as SS Age X Education, SS Age X Sex and SS Education X Sex.

Table 7.11. First Order Interaction
Interaction Between Age and Education
(SS Age X Education)

(1)	(4)	(7)	(10)
$\frac{(MAX)^2}{(FAX)}/65$	$\frac{(MBX)^2}{(FBX)}/65$	$\frac{(MCX)^2}{(FCX)}/63$	$\frac{(MDX)^2}{(FDX)}/63$
4212.16	4695.74	4507.49	4818.63
(2)	(5)	(8)	(11)
$\frac{(MAY)^2}{(FAY)}/69$	$\frac{(MBY)^2}{(FBY)}/73$	$\frac{(MCY)^2}{(FCY)}/61$	$\frac{(MDY)^2}{(FDY)}/75$
4173.66	4474.92	4310.88	5502.54
(3)	(6)	(9)	(12)
$\frac{(MAZ)^2}{(FAZ)}/78$	$\frac{(MBZ)^2}{(FBZ)}/76$	$\frac{(MCZ)^2}{(FCZ)}/72$	$\frac{(MDZ)^2}{(FDZ)}/71$
4582.06	4477.13	5072.26	5009.56

$$\text{SS Age X Education} = \frac{\Sigma(1)^2}{N_1} + \frac{\Sigma(2)^2}{N_2} + \frac{\Sigma(3)^2}{N_3} + \cdots\cdots\cdots + \frac{\Sigma(12)^2}{N_{12}} - C - \text{SS Age} - \text{SS Edu.}$$

$$= 55836.98 - 55723.04 - 78.09 - 24.73$$

$$= 11.12$$

Table 7.12. Variance Due to Interaction
Interaction Between Age and Sex (SS Age X Sex)

(1)	(2)	(3)	(4)
$\begin{bmatrix} MAX \\ MAY \\ MAZ \end{bmatrix}^2 /104$	$\begin{bmatrix} MBX \\ MBY \\ MBZ \end{bmatrix}^2 /109$	$\begin{bmatrix} MCX \\ MCY \\ MCZ \end{bmatrix}^2 /98$	$\begin{bmatrix} MDX \\ MDY \\ MDZ \end{bmatrix}^2 /105$
6247.74	6837.34	7003.02	7839.76

(5)	(6)	(7)	(8)
$\begin{bmatrix} FAX \\ FAY \\ FAZ \end{bmatrix}^2 /108$	$\begin{bmatrix} FBX \\ FBY \\ FBZ \end{bmatrix}^2 /105$	$\begin{bmatrix} FCX \\ FCY \\ FCZ \end{bmatrix}^2 /98$	$\begin{bmatrix} FDX \\ FDY \\ FDZ \end{bmatrix}^2 /104$
6715.65	6784.96	6887.69	7488.18

$$\text{SS Age X Sex} = \frac{\Sigma(1)^2}{N_1} + \frac{\Sigma(2)^2}{N_2} + \cdots + \frac{\Sigma(8)^2}{N_8} - C - \text{SS Age} - \text{SS Sex}$$

$$= 55804.35 - 55723.04 - 78.09 - 0$$

$$= 3.22$$

Table 7.13. Variance Due to Interaction
Interaction Between Education and Sex
(SS Education X Sex)

(1)	(2)	(3)
$\begin{bmatrix} MAX \\ MBX \\ MCX \\ MDX \end{bmatrix}^2 /124$	$\begin{bmatrix} MAY \\ MBY \\ MCY \\ MDY \end{bmatrix}^2 /139$	$\begin{bmatrix} MAZ \\ MBZ \\ MCZ \\ MDZ \end{bmatrix}^2 /153$
8731.47	9230.93	9917.52

(4)	(5)	(6)
$\begin{bmatrix} FAX \\ FBX \\ FCX \\ FDX \end{bmatrix}^2 /132$	$\begin{bmatrix} FAY \\ FBY \\ FCY \\ FDY \end{bmatrix}^2 /139$	$\begin{bmatrix} FAZ \\ FBZ \\ FCZ \\ FDZ \end{bmatrix}^2 /144$
9486.92	9917.07	9184.66

$$\text{SS Edu. X Sex} = \frac{\Sigma(1)^2}{N1} + \frac{\Sigma(2)^2}{N2} + \cdots + \frac{\Sigma(6)^2}{N6} - C - \text{SSEd.} - \text{SS Sex}$$

$$= 55748.57 - 55723.04 - 24.73 - 0 = 0.80$$

The second order interaction involving the interaction of all the three variables viz. Age, Education and Sex was known from the Cell design shown in Table 7.14 and this effect, viz. SS Age X Education X Sex was computed.

Table 7.14. Variance Due to the Second Order Interaction of Age, Education and Sex (SS Age X Edu X Sex)

(1) $(MAX)^2/31$	(2) $(MBX)^2/29$	(3) $(MCX)^2/30$	(4) $(MDX)^2/34$
1892.29	2042.04	2163.42	2650.94
(5) $(FAX)^2/34$	(6) $(FBX)^2/36$	(7) $(FCX)^2/33$	(8) $(FDX)^2/29$
2323.21	2654.31	2344.13	2168.12
(9) $(MAY)^2/33$	(10) $(MBY)^2/40$	(11) $(MCY)^2/30$	(12) $(MDY)^2/36$
1963.81	2477.00	2197.69	2611.72
(13) $(FAY)^2/36$	(14) $(FBY)^2/33$	(15) $(FCY)^2/31$	(16) $(FDY)^2/39$
2210.10	1998.60	2114.56	2690.98
(17) $(MAZ)^2/40$	(18) $(MBZ)^2/40$	(19) $(MCZ)^2/38$	(20) $(MDZ)^2/35$
2391.82	2328.22	2642.78	2578.98
(21) $(FAZ)^2/38$	(22) $(FBZ)^2/36$	(23) $(FCZ)^2/34$	(24) $(FDZ)^2/36$
2190.63	2149.10	2429.71	2432.96

$$\text{SS Age X Edu X Sex} = \frac{\Sigma(1)^2}{N1} + \frac{\Sigma(2)^2}{N2} + \cdots\cdots\cdots \frac{\Sigma(24)^2}{N24} - C - \text{SS Age} - \text{SS Edu.} - \text{SS Sex} - \text{SSAE} - \text{SSAS} - \text{SSES}$$

$$= 55846.57 - 55723.04 - 78.09 - 24.73 - 0 - 11.12 - 3.22 - 0.80$$

$$= 5.57$$

SS Cell = 55846.57 - 55723.04

= 123.53

SS Within = 756.96 - 123.53 i.e. SST - SS Cell

= 633.43

The variance within the Cells, viz. SSW is calculated by knowing the difference between the total variance and that due to Cell viz. SSC which is the difference between the sum of squares of the cells in Table 7.14 and the correction term.

The final analysis of variance chart has been shown in Table 7.15 in which degrees of freedom have been shown from which the Mean sums of the squares (MSS) have been computed. The F ratios are obtained by taking the ratio of each of these MSS with that of the MSS within. The significance was found from the F ratio table.

Table 7.15. Analysis of Variance

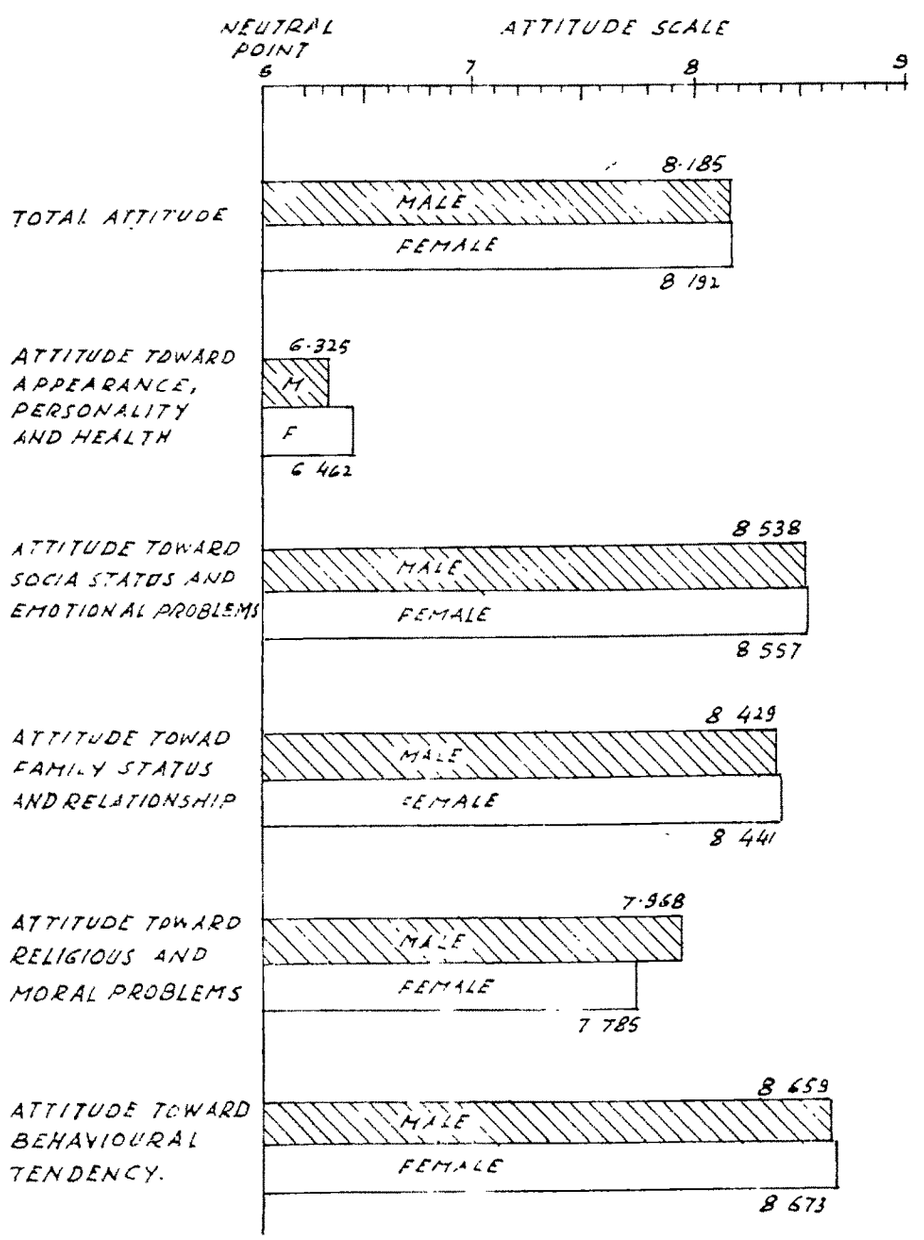
Source of Variance	df Degrees of Freedom	SS Sum of the Squares	MSS=SS/df Mean Sum Square	F Ratio = MSS/MSSW	Significant at Levels
SS Age	3	78.09	26.03	33.37	0.05 0.01
SS Education	2	24.73	12.37	15.86	0.05 0.01
SS Sex	1	00.00	00.00	00.00	Not
First Order Interaction					
SS Age X Edu.	6	11.12	1.85	2.38	0.05
SS Age X Sex	3	3.22	1.07	1.37	Not
SS Edu. X Sex	2	0.80	0.40	0.51	Not
Second Order Interaction					
SS Age X Edu. X Sex	6	5.57	0.93	1.91	Not
SS Within	807	633.43	0.78		
Total	830	756.96			

The Table 7.15 reveals that both age and education play a significant role in determining the attitude of the young toward the aged. That sex has no role in differentiating the affect of the attitude is evident from the zero value obtained in the above table. In the first order interaction, only the effect of Age and Education together is seen to be significant at 0.05 level only, while that of Age and Sex so also that of Education and Sex are evidently insignificant. In the second order interaction the effect of age, education and sex is also found insignificant.

The effects of these variables individually are represented in Bar-chart Nos. II to XIII. By noting the Bar-chart Nos. II, III, IV, V and VI, the effect of age on total attitude as well as on the four areas comprising this total attitude can be seen to be rising with advancing age.

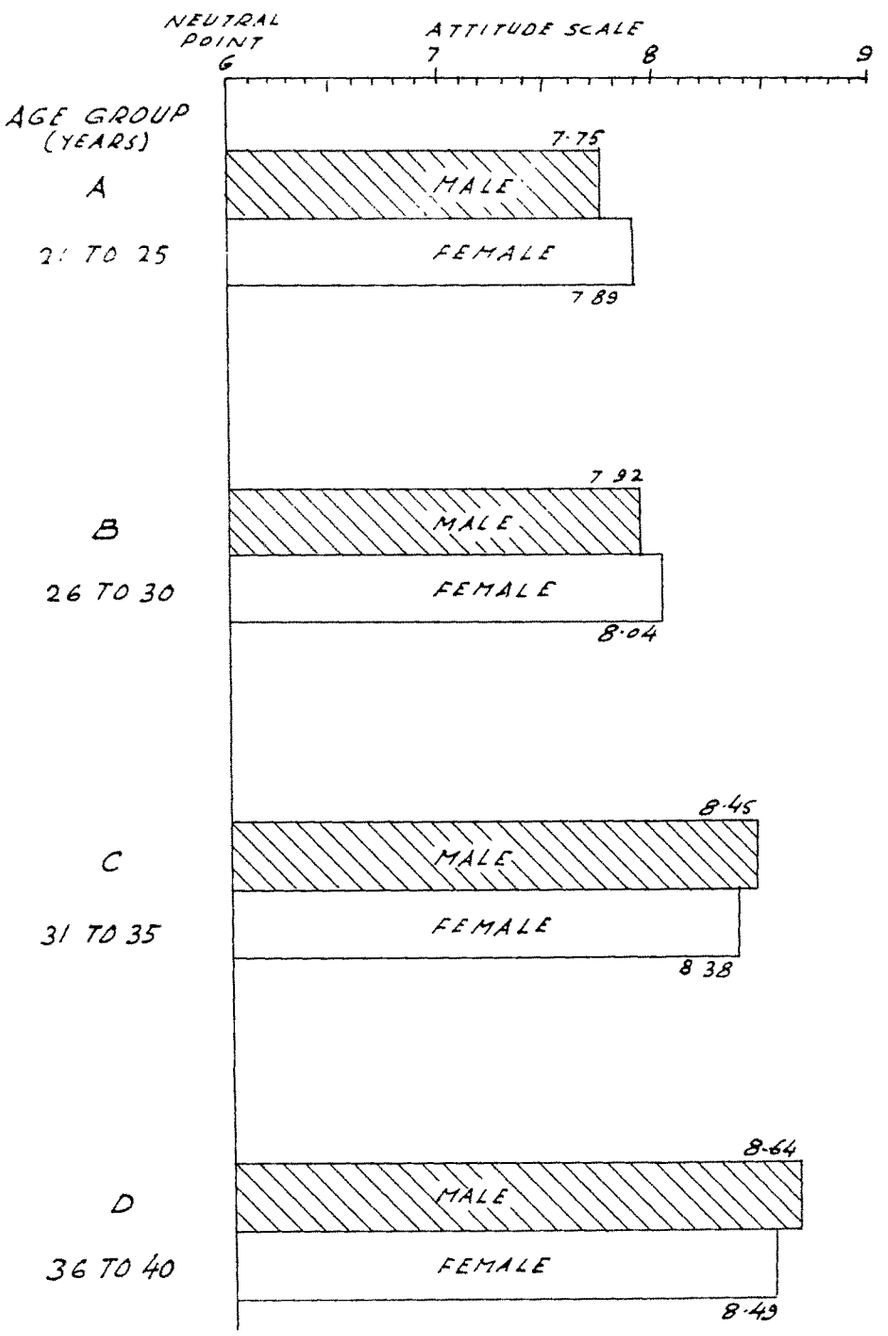
Bar-chart No. II shows a gradual increase in the effect of the total attitude in the direction of favourability. This shows that as a person advances in age, his attitude toward the aged tends to be more favourable. This may be explained by the maturity a person gains with his experiences as he himself grows in years. At the same time, with advancing age one may be said to be approaching nearer to old age, thereby viewing it as a

TOTAL ATTITUDE AND ITS DISTRIBUTION IN FOUR DIFFERENT AREAS SO ALSO THE ATTITUDE SHOWING BEHAVIOURAL TENDENCY SEPARATELY



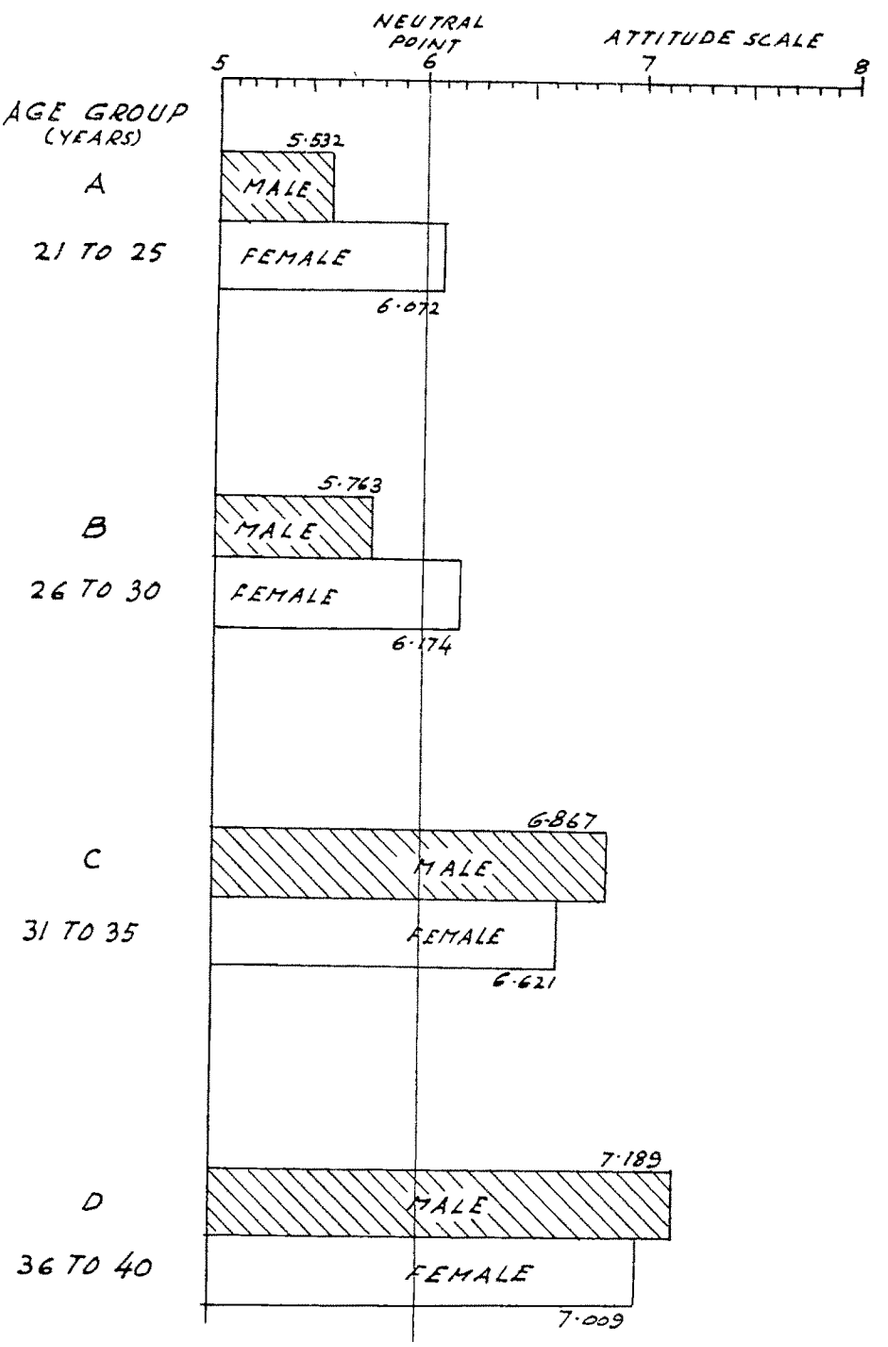
BAR CHART - I

EFFECT OF AGE ON TOTAL ATTITUDE



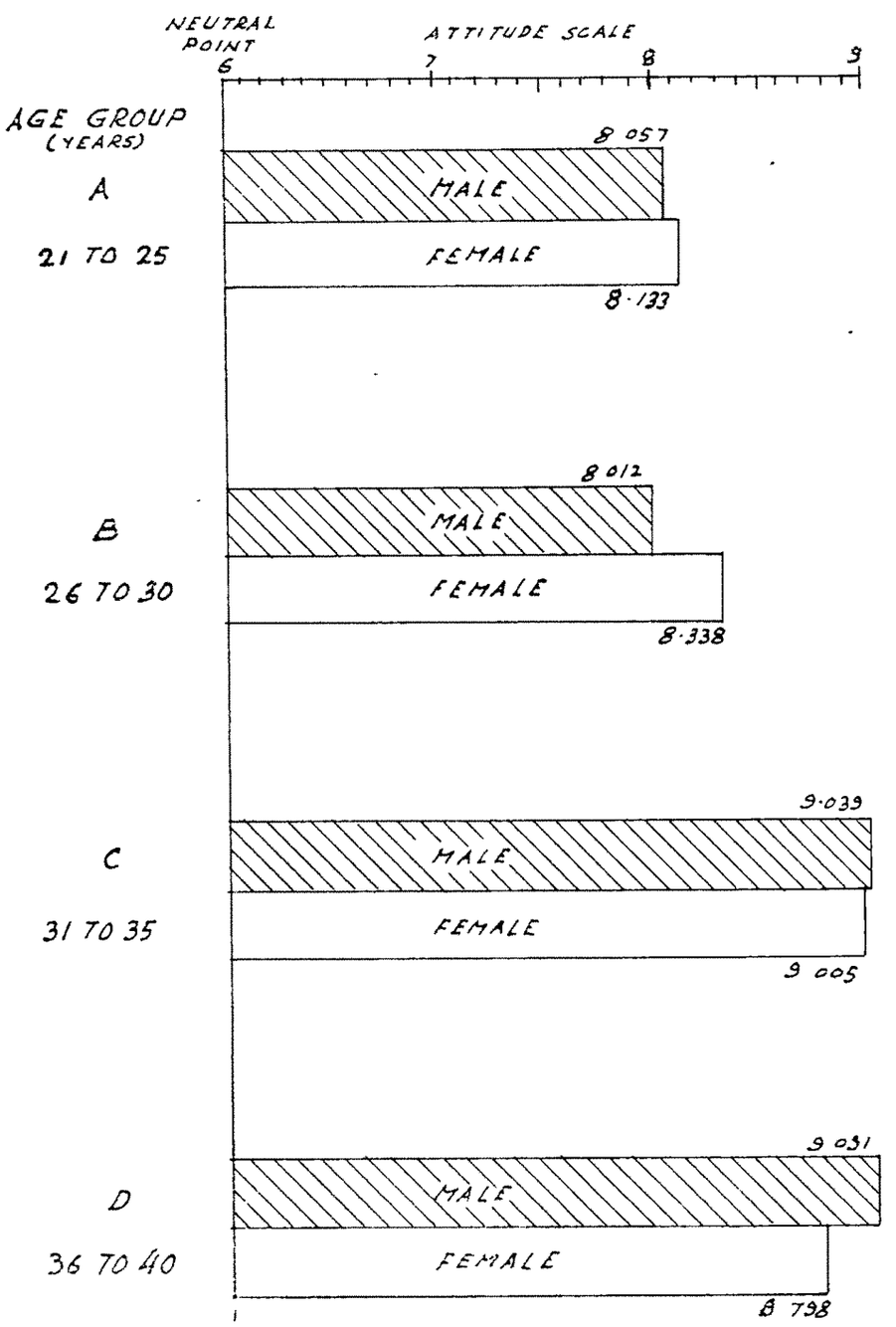
BAR CHART - II

EFFECT OF AGE ON ATTITUDE TOWARD APPEARANCE, PERSONALITY AND HEALTH



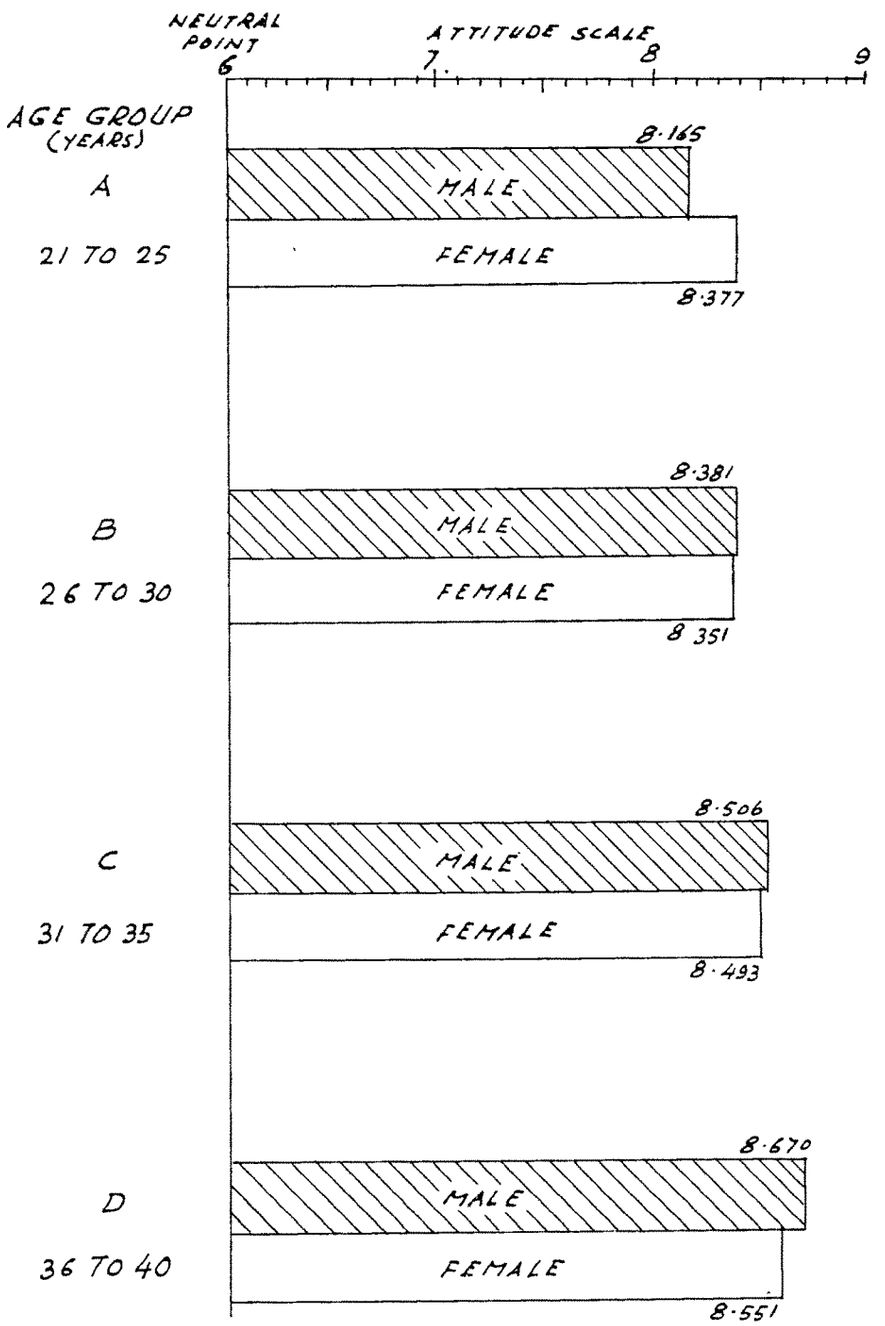
BAR CHART - III

EFFECT OF AGE ON ATTITUDE TOWARD SOCIAL STATUS AND EMOTIONAL PROBLEMS



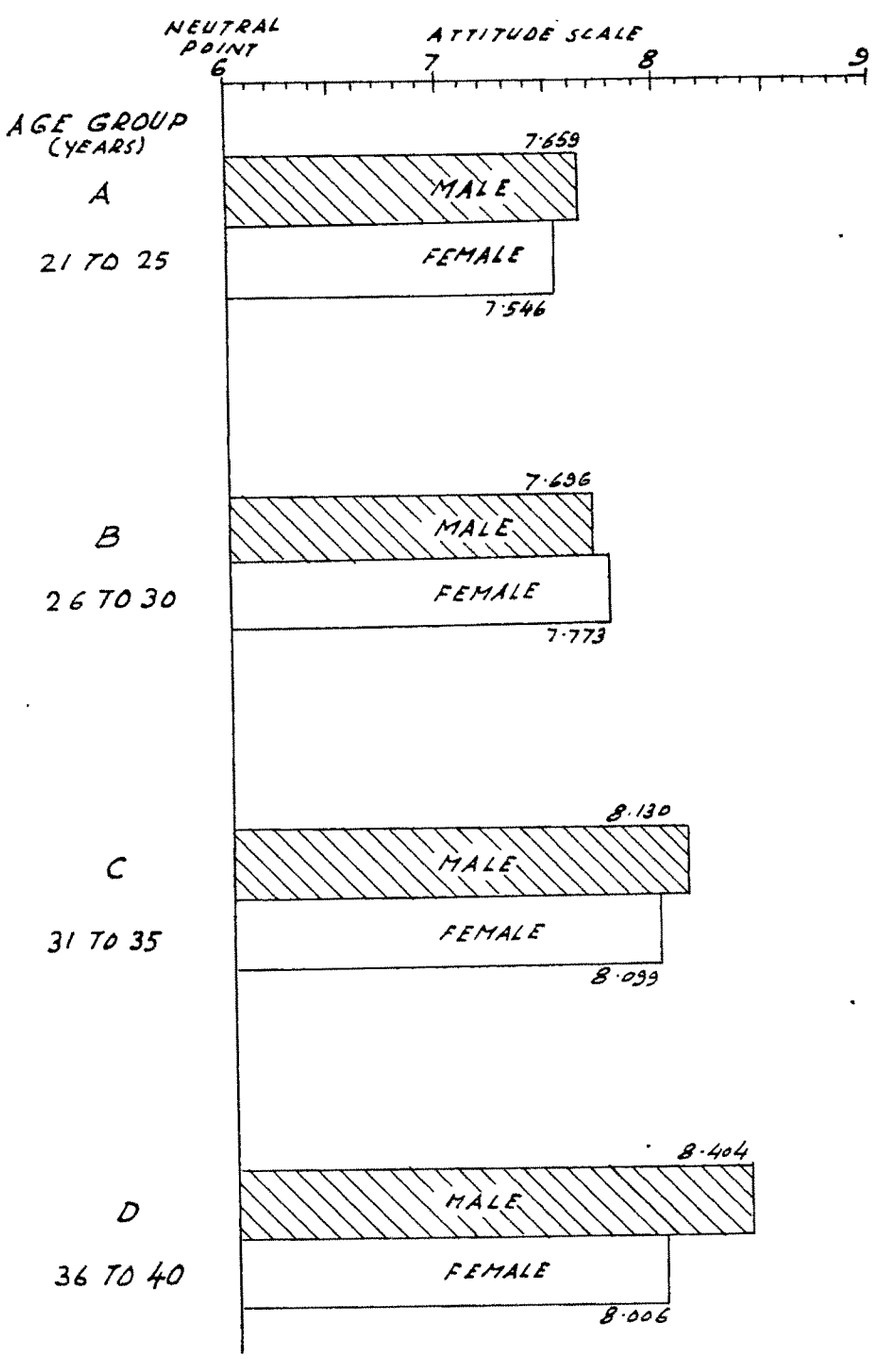
BAR CHART - IV

EFFECT OF AGE ON ATTITUDE TOWARD FINANCIAL STATUS AND FAMILY RELATIONSHIP



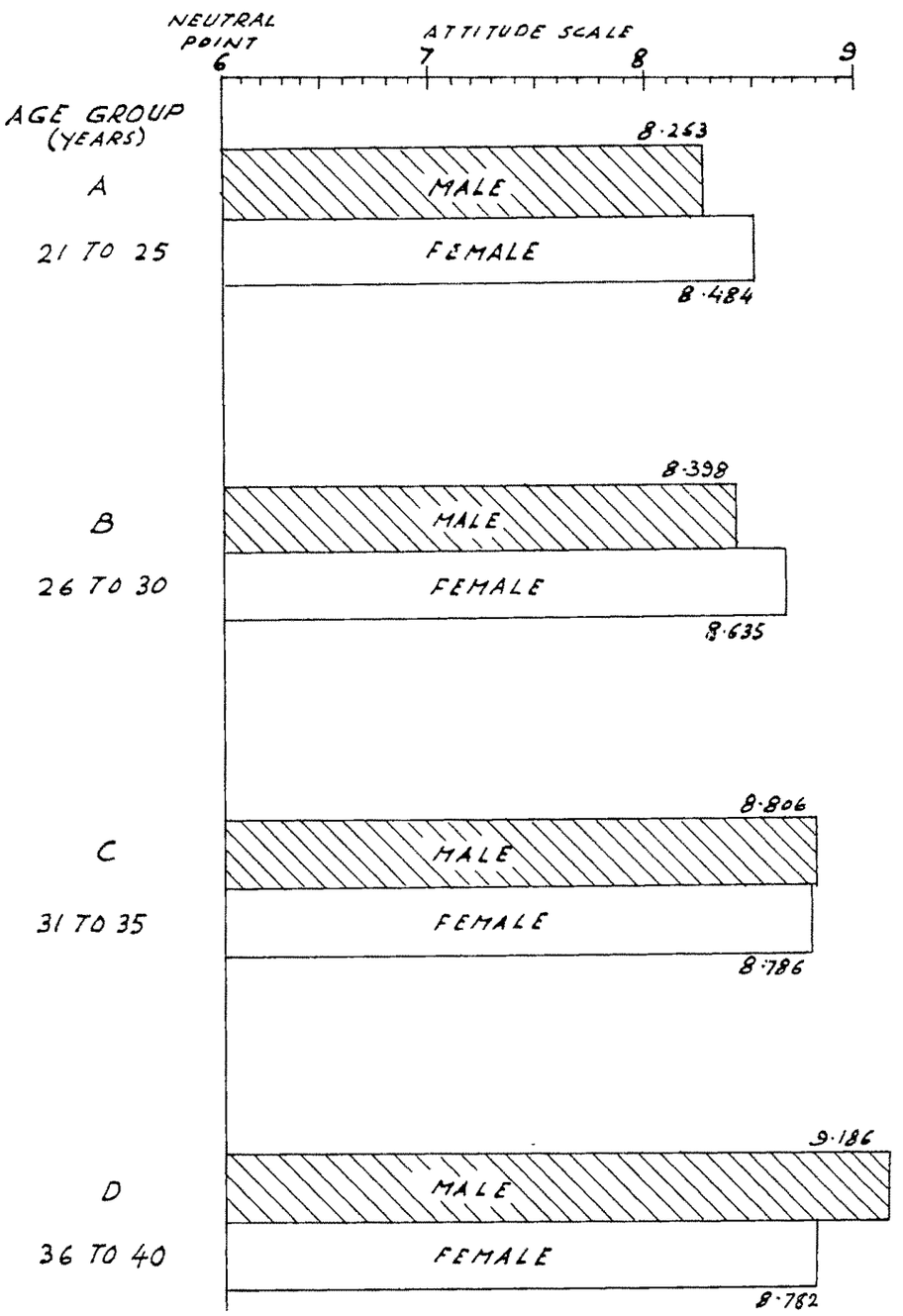
BAR CHART - V

EFFECT OF AGE ON ATTITUDE TOWARD RELIGIOUS AND MORAL PROBLEMS



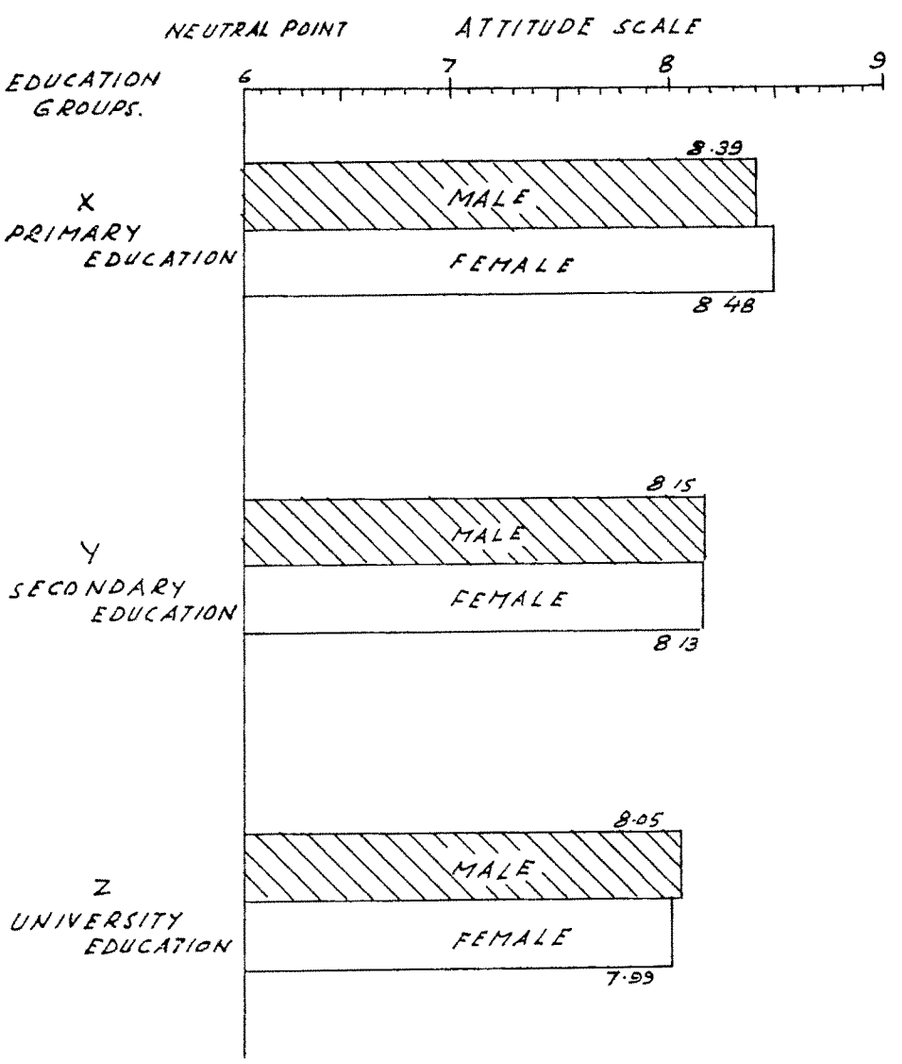
BAR CHART VI

EFFECT OF AGE ON ATTITUDE TOWARD BEHAVIOURAL TENDENCY



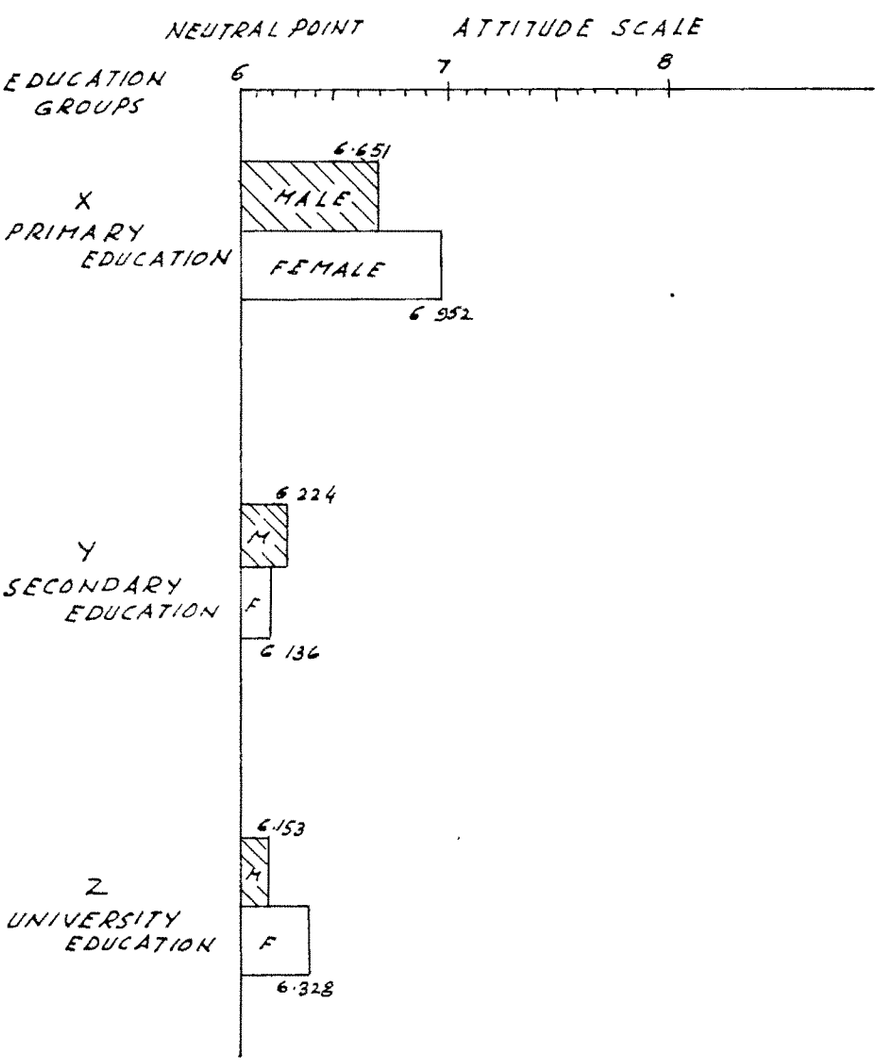
BAR CHART - VII

EFFECT OF EDUCATION ON TOTAL ATTITUDE



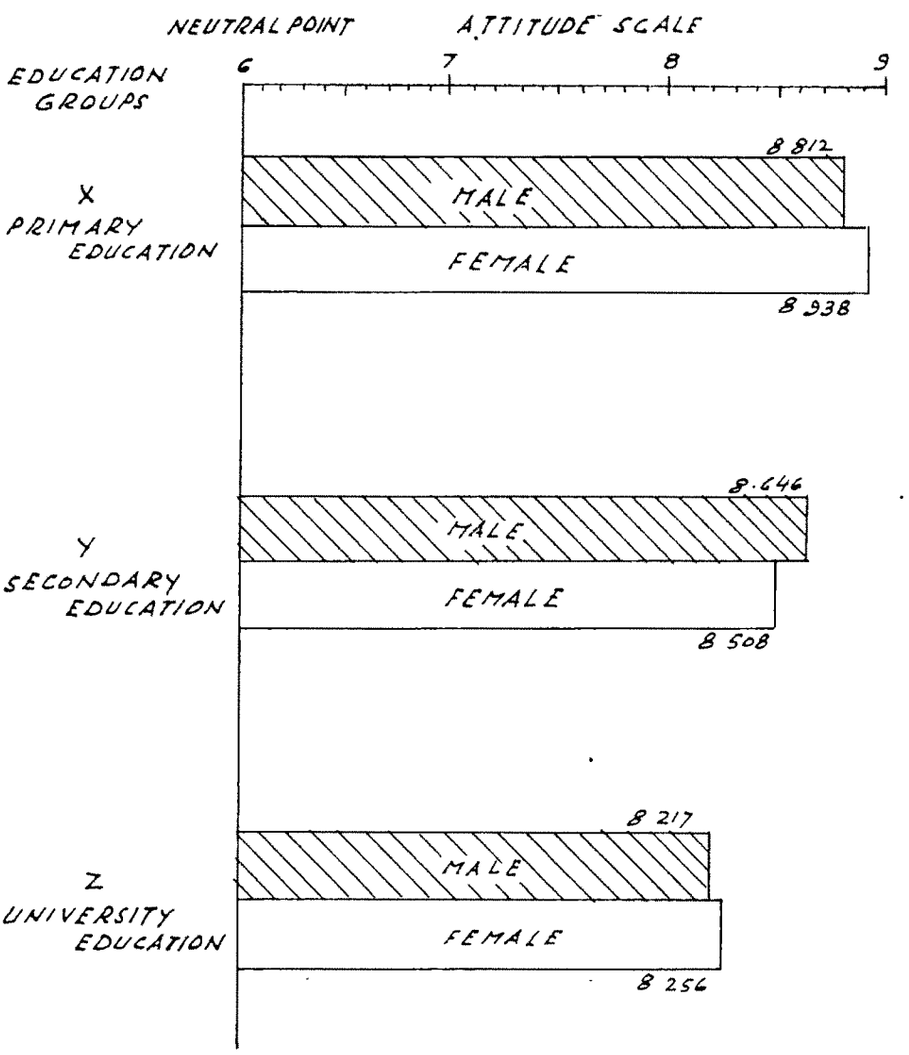
BAR CHART- VIII

EFFECT OF EDUCATION ON ATTITUDE TOWARD APPEARANCE, PERSONALITY & HEALTH



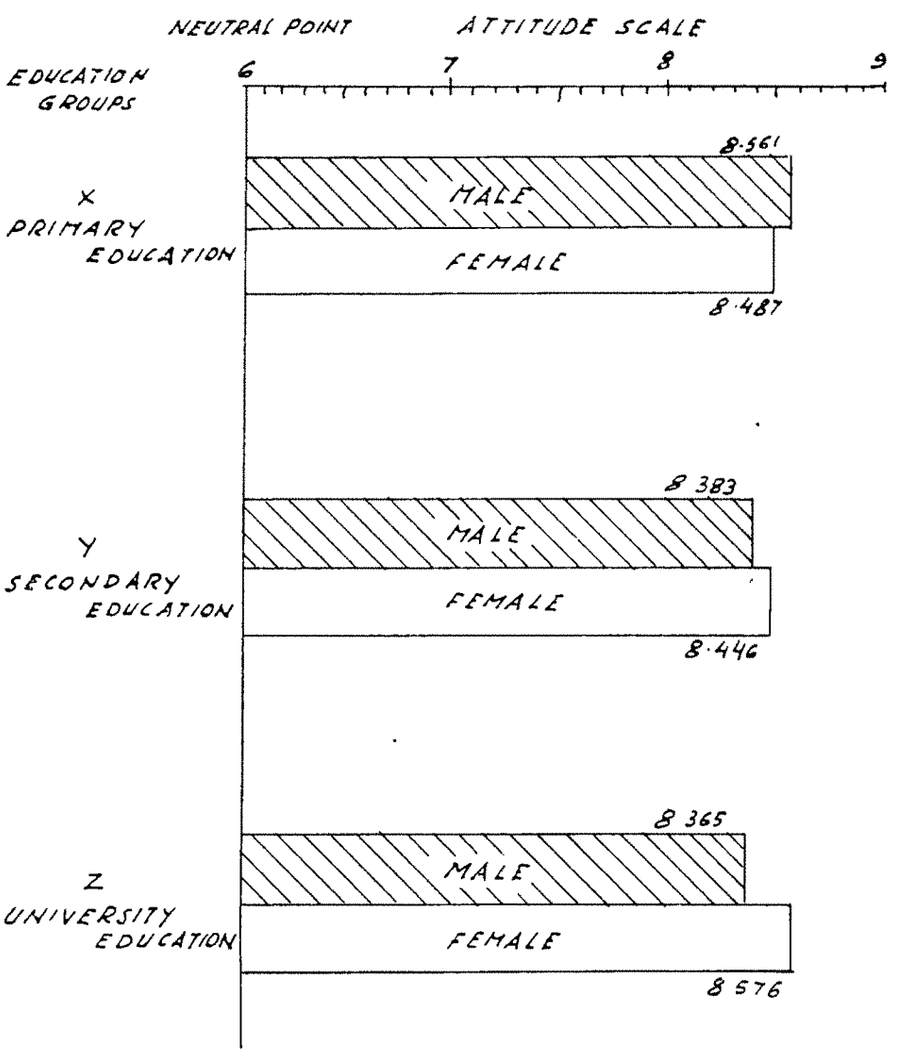
BAR CHART - IX

EFFECT OF EDUCATION ON ATTITUDE TOWARD SOCIAL STATUS AND EMOTIONAL PROBLEMS



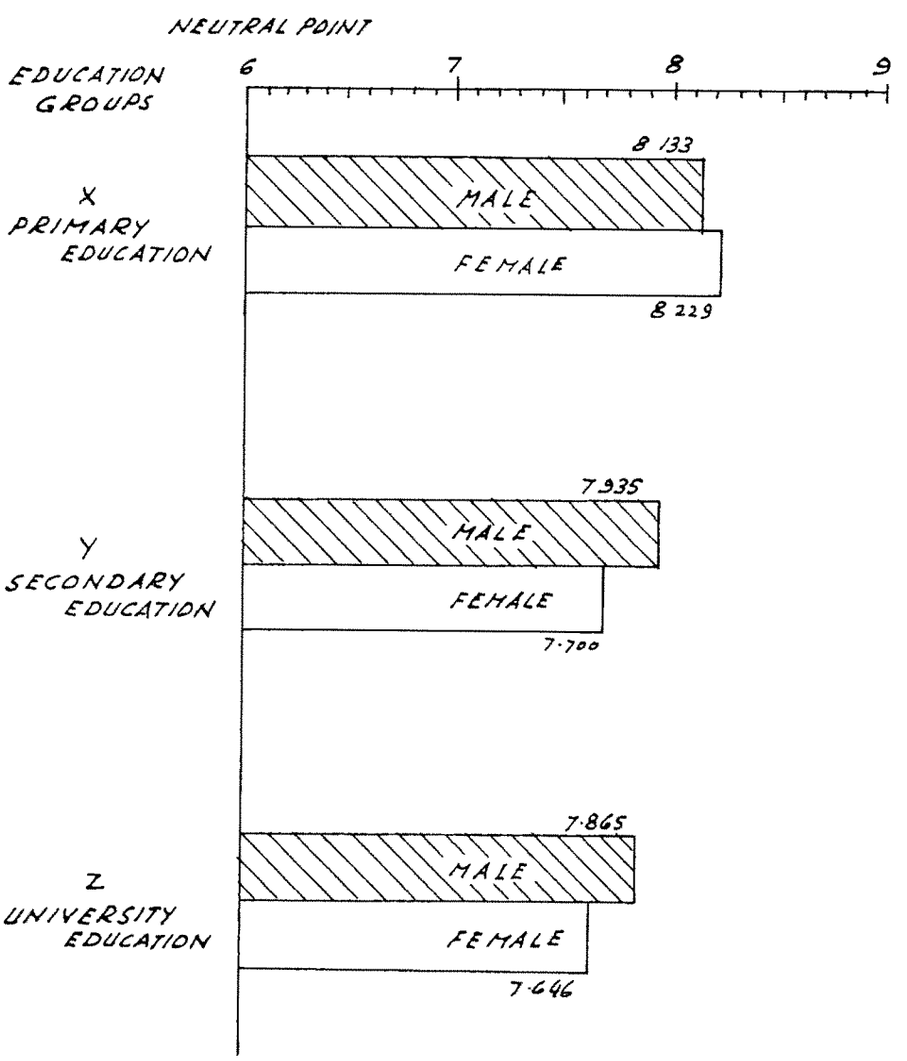
BAR CHART- X

EFFECT OF EDUCATION ON ATTITUDE TOWARD FINANCIAL STATUS AND FAMILY RELATIONSHIP



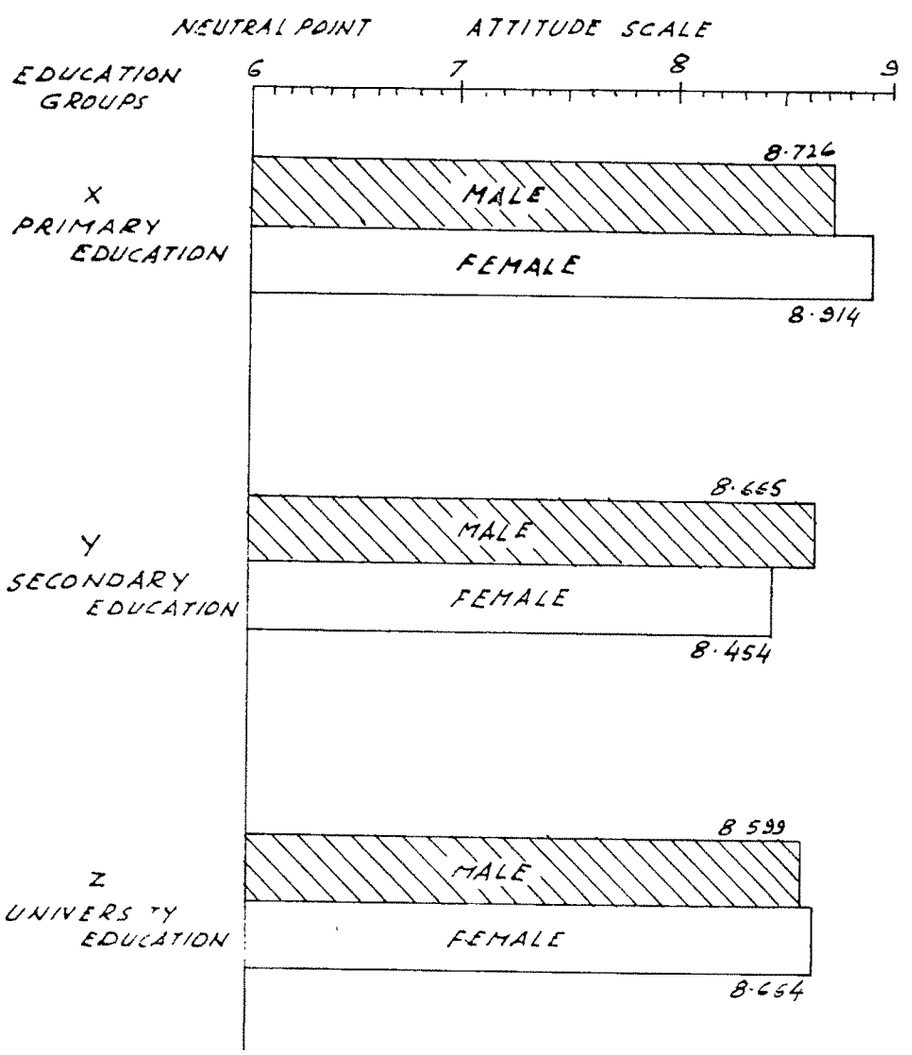
BAR CHART - XI

EFFECT OF EDUCATION ON ATTITUDE TOWARD RELIGIOUS AND MORAL PROBLEMS



BAR CHART - XII

EFFECT OF EDUCATION ON ATTITUDE TOWARD BEHAVIOURAL TENDENCY



BAR CHART- XIII

phase of life that is in a way similar to which he himself belongs. The initial difference between the individual (young) and the aged, thus gets narrowed down as the young person grows in years.

This line of reasoning can be further extended to the individual areas tpo. Bar-chart No. III represents the increase with age in the favourability of the attitude in the area of 'appearance, personality and health'. For the first age group, viz. 21 to 25 years, it can be seen that, while the attitude is almost neutral in case of the female subjects, in males it is unfavourable, though slightly. This state continues even in the second age group, viz. 26 to 30 years. But as age advances from 31 onwards, the attitude for both the sexes tends towards favourability to a considerable degree. This shows that the 'appearance, personality and health' of the aged annoy the subjects in their prime youth. Advancement in years helps the subjects develop a sympathetic outlook towards these aspects.

Bar-chart No. IV shows the effect of advancing age upon the attitude in the area of 'social status and emotional problems'. In this area, all age groups display a favourable attitude, though the degree of favourability is seem to creep up gradually with age. So far as social relationships or emotional problems are

concerned, the aged are seen to be well accepted by all the age groups.

From Bar-chart No. V, it can be seen that the increase in the attitude in the area of 'financial status and family relationships' is almost negligible. The attitude is seen to be adequately favourable for all age groups. The position of the aged so far as financial status or family relationships are concerned is seen to be secure. They are well accepted by the youth at all age levels.

The increase in the degree of favourability with age in the area of 'religious and moral problems' can be noted from Bar-chart No. VI. Although it is favourable for all age groups, the favourability is seen to rise in case of the age groups 31 to 35 years and 36 to 40 years.

Bar-chart No. VII shows a steady rise in favourability of the behavioural tendencies. The behavioural tendencies show themselves as favourable in case of all four age groups; but at every subsequent age level an increase in the favourableness can be noted.

The adverse effect of education on the attitude is represented in Bar-chart Nos. VIII, IX, X, XI, XII and XIII. This effect is also displayed in the total attitude

as well as in the different areas separately. Bar-chart No. VIII shows the decrease in the degree of favourability with increasing education. Though slight, there is a steady decrease of favourableness from the subjects with primary education to those with university education. The subjects with secondary education fall in between. With education, a person acquires progressive ideas. This fact may influence the attitude toward the aged in an adverse manner. Old age is not a stage that can easily reconcile with such ideas. Thus the clash between the educated youth and the aged can be explained. Moreover, higher education is comparatively a recent practice (on a wider scale) in India. The aged are not on an average accomplished with higher education. Thus a breach is formed between the educated youth and the average aged, which in turn causes the youth look upon the aged in an unfavourable light.

Bar-chart No. IX shows this adverse effect as more marked in the area of 'appearance, personality and health', than in any of the other areas. This shows that the educated youth are more critical about the appearance, personality and health of the aged. Actually education should widen the views and bring about a refinement of ideas. As such its adverse effect on the attitude seems to be paradoxical.

The effect of education in the area of 'social status and emotional problems' as seen in Bar-chart No. X is similarly in the direction of unfavourableness, but not so marked. Education is not thus seen to make the young subjects more critical about the social standing or the emotional life of the aged.

Bar-chart Nos. XI and XII show that the adverse effect of education in the areas of 'financial status and family relationships' as well as 'religious and moral problems', is almost negligible. So far as the financial status or family relationships are concerned, the aged seem to be well accepted even by the subjects with higher education. Similarly, the religious and moral problems of the aged are also viewed sympathetically by these subjects. Thus the adverse effect of education is seen to be accentuated only in connection with the problems concerning appearance, personality and health of the aged.

Bar-chart No. XIII indicates that the behavioural tendencies are not much affected by education. The subjects with secondary and higher education display adequately favourable tendencies so far as behaviour is concerned.

Thus, the fourth hypothesis that the variables of age, education and sex will play a significant role in

deciding the degree of favourability of the attitude, has been tested. The results, however, show that sex is not effective in deciding the degree of favourability.

7.6 EFFECT OF SECONDARY VARIABLES

Apart from the above discussions regarding the primary variables of Age, Education and Sex, in order to have some idea of the effect of the secondary variables, information was also obtained regarding them. As provision was already made in the scale the raw data contained this information of the secondary variables as three income groups, divided and undivided families, and the association with the old along with their happy or unhappy childhood memories during the first decade of life.

The income groups were of three categories of the middle class, viz. that (1) having annual income below Rs. 6000, (2) that having annual income ranging between Rs. 6000 and Rs. 12000, and (3) that having annual income above Rs. 12000. Of the 831 subjects only 512 responded to this querry from which 204 belonged to the first category of the income group showing a mean score of attitude 8.24. In the second category of income group 175 subjects gave the responses from which the mean score calculated was 8.28. The higher group with more than Rs. 12000 annual income was the least in number these being only 133 responses and showed a mean score of 8.12.

It is seen here that the three means more or less coincide, from which the idea may be obtained that there is not much effect of this secondary factor. However, much stress cannot be laid on this finding as the subjects had not responded to this querry in a reliable manner there being many blanks. That is why detailed analysis was not taken in hand regarding this factor.

The next factor of the family type showed considerable ill-balanced and scanty data in the two groups. The number of divided family subjects far exceeded that of the undivided family subjects. Though the results cannot be reliably computed from such responses it was found that the mean of the attitude of the undivided family type subjects was somewhat lower than that of the divided family type subjects. No bold conclusion, however, can be drawn from this observed difference.

For the Association with the old in the first decade of life and the happy or unhappy childhood memories there were hardly a few subjects reporting unhappy memories. This number being negligible it would be improper to deal with these responses under the present circumstances.

7.7 SUMMARY

The responses of the 831 subjects on the attitude scale were analysed with the help of appropriate statistical techniques. It was seen that the subjects

exhibited a favourable attitude toward the aged. It was also noted that the behavioural tendencies were more favourable than the total attitude and that the difference in the mean scores of the two was significant. The areas constituting the attitude were seen to be independent of one another. Out of the three main variables, viz. age, education and sex, the effects of the first two were found to be significant. Sex was found not to exert any differential effect on the attitude. The other secondary variables were also considered but no conclusive inferences could be drawn therefrom.