CHAPTER FOUR

ADJUSTMENT PROCESSES -

- FAMILY ADJUSTMENT

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The systematic study of the whole man is undertaken in two inseparable fields, identified as the psychology of adjustment and the psychology of personality. Adjustment and personality are unifying concepts because they include the various subordinate processes of motivation, emotion and cognition. For examplem adjustment is accomplished through the exercise of cognitive activities such as perception and thought, processes by which the person has transactions with the world about him. But these processes are not the person. To the psychologist of personality, the organization of the subordinate processes is the essence of personality. Every individual is a combination of traits, such as physical appearance, gestures, speech, ideas, emotions, habits and skills. These characteristics function together as an integrated

whole and constitute what is generally termed as personality. One trait may be so dominant that other qualities lose their significance, yet all of them are important and most of them possible of modification through education.

Thus, in view of the importance of birth the related concepts, viz. adjustment and personality in the total study of man, the investigator has undertaken to study the first-born with respect to the later-born in these characteristics. This chapter deals with findings in connection with adjustment processes including the significance of parent relationship, family adjustment or parent-child relationship, social adjustment and personal adjustment (almost bordering to personality characteristics), and the next chapter deals with various personality traits as sub-chapter. The significance of parent relationship in the formation of the child's personality has been emphasized again and again, for it has been a major thesis throughout the study of the psychology of adjustment. Adjustment includes integration, but emphasises the relationship between individuals and environment. If a person is maladjusted personally, socially or in the family, he is unable to get on well with himself and with other people or groups because of his over-emotionality, selfishness, domineering attitude or lack of social experience. A well-adjusted person has been described as

'One who has established wholesome relationship with his physical and social environment with the result that he is emotionally stable".[1]

The problem of defining what constitutes good adjustment is a very difficult one for which there is no single answer. Good and bad are essentially ethical concepts and have no place in realm of science. To the psychiatrist or clinical psychologist, maladjustment is an ailment to be remedied. An attempt at a psychological criterion to define theory would reveal that good adjustment is that mode of action which culminates in satisfying fully, and most directly the needs or the drives of an individual. This may be obviously true for adjustment in case of physiological and personal needs. But this thinking leads to trouble particularly in case of psychological and social drives, where satisfaction of each and every drive is not possible since it involves the relationship with other individuals. To achieve such adjustment or satisfying behaviour requires unified and integrated behaviour, the presence or absence of which provides what is perhaps the clearest distinction between good adjustment and mal-adjustment. In defining good

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1. Harold Benjamin, Consulting Editor, Dictionary of Education : McGraw Series in Education.

adjustment, the influence of social groups and social customs cannot be ignored. The concept of individual integration must however be supplemented with one of the integration in society. When the inter-related motives of a person are satisfied without undue emphasis and when this is achieved with consideration for others, a state of good adjustment may be said to exist.

The term "adjustment" has two meanings. In one sense, it is continual process by which a person varies his behaviour to produce a more harmonious relationship between himself and his environment. In the other sense, adjustment is a psychological state, i.e. the condition of harmony or balance arrived at by the person whom we call well-adjusted (similar to the physiological state of homeostasis). The degree of harmony may depend upon certain potentialities within the person. It also depends in part upon certain characteristics of environment. The environment must be such that it is possible for a person to satisfy his basic personality needs.

As a human being we have many needs and we spend most of our time and energy to satisfy them. For example, several times a day we get hungry - a signal that our tissues lack in nourishment required to keep them functioning. In a response to our hunger (a physiological need) we eat and thereby restore the balance between our

bodily demands and the food energy available to meet them. Similar processes are involved also in meeting with psychological and social needs. Life consists of a series of such sequences in which needs are aroused and satisfied. Need satisfaction is the key to the adjusted and integrated behaviour. This familiar pattern of restoration of balance - physiological or psychological - is the process of adjustment. An individual for a healthy growth (physical or mental) must be well-adjusted in different spheres. This chapter deals with discussion on the traits of family adjustment, social adjustment and personal adjustment of the adolescent first-born in relation to that of the sequent siblings.

FAMILY ADJUSTMENT

Symonds has justifiably claimed : " If an individual possesses a healthy, stable, courageous and loving father and mother, the chances are that he will be a good student, a good worker, a good husband or wife, a good leader and a good citizen" (in 'Child Development' by Elizabeth Hurlock). The parent's attitude towards the child may be a reflection of their own adjustment or maladjustment to life and to marriage. Family happiness and unity are markedly affected by such factors as husband-wife relationships, in-law interference, money problems, or the health and personality characteristics of the parents. Tension

relating to affectional and ego values lying within the relationship of husband to wife have been found to have a marked influence on child's adjustment to life.

As the agencies outside the home have assumed increasingly more of the traditional family functions, family members, particularly parents, have learned to recognise psychological needs that arise within the family circle and to spare more time satisfying them. Satisfaction of psychological needs has always been one of the family's most important functions. Adults as well as children need affection and love, acceptance and recognition, all the functions that contribute to emotional security. If its members possess sufficient psychological insight and sensitivity, no group is better qualified than the family to help to satisfy psychological needs. The close associations family members have enjoyed, the confidence they have shared, the familiarity with one another's personality characteristics that has developed - all these can help one member to know what relief measures another needs. The intimate understanding that parents should have for their children often leads them to satisfy intuitively the appropriate psychological needs of children. It has been admitted by all that healthy and harmonious relations between the members in the family play an important role in health, personality development and adjustment. Lack of understanding on the

part of parents or between members of the family is likely to result in problems of maladjustment or lesser adjustment.

To study the extent of such family adjustment within the groups under study, a Family Adjustment Inventory consisting of 40 statements (Appendix A-I), constructed by Dr. A.S. Patel at the Faculty of Education and Psychology, Baroda, was administered to all the subjects and their responses were scored as per the scoring key devised by the author of the Inventory (maximum possible score being 40). These scores were summarised and analysed statistically to study the differences in adjustment between the groups, the sex differences in adjustment and the interaction if any.

The present investigator has studied here three variables, viz.sex, birth order and family size, as related to adjustment and other processes. As noted in earlier chapter, a huge number of comparisons can be made with respect to groups and subgroups based on sex and birth order of individuals belonging to different ordinal status and coming from families of varied sizes. The results have been summarised in three Summary Sheets given herewith. Summary Sheet No. 1 (FA) describes the effects or mean(family adjustment) scores of these three main variables. Summary Sheet No. 2 (FA) gives the mean scores of all possible groups (27), i.e. of boys and girls of different birth orders of children from different family sizes. However, for the present study, the discussion has been limited to comparison of the selected groups which are of importance and

value for their contribution to the exposition of the problem under study. Thus, the discussion revolves round the following fourteen groups, viz.

1. All boys Vs. All girls
2. First-born boys Vs. First-born girls
3. Second-born boys Vs. Second-born girls
4. Middle-born boys Vs. Middle-born girls
5. Last-born (youngest) boys Vs. Last-born (youngest) girls
6. First-born Vs. Later born other siblings
7. Only child Vs. Other first-born
8. Only child (boys) Vs. Other first-born (boys)
9. Only child (girls) Vs. Other first-born (girls)
10. First-born of mixed sex Vs. First-born of same sex
11. Only child Vs. Later born (excluding first-born)
12. First-born Vs. Youngest
13. Youngest Vs. Second-born and middle-born
14. Youngest Vs. Only child

Summary Sheet No. 3 (FA) presents the results of these fourteen groups which have been analysed with a statistical technique of analysis of variance and subjected to the F-test to investigate the significance of differences resulting from main variables, viz. sex and birth order of subjects from families of varied sizes, and the design enables also to study the interaction between the two, if any.

Further, wherever necessary, after finding significant F justifying the overall significance between more than two groups, the least Significant Difference or Gap test has been employed to find out which group differed from which other group or sub-groups.

SUMMARY SHEET NO. 1 (FA)

Showing Mean Scores of Main Groups on Family Adjustment

Main Variable		Group	Number	Mean
A	Sex	Boys	735	24.03
		Girls	701	23.89
B	Birth Order	I First-born	500	24.07
		II Second born	308	26.93
		III Middle born	332	21.27
		IV Last born	296	23.36
C	Family Size	F_1	100	25.09
		F_2	183	26.33
		F_3	190	26.13
		F_4	313	25.75
		F_5	291	22.02
		F_6	359	21.27
		Grand Total	1436	23.96

SUMMARY SHEET NO. 2

Showing Mean Scores of each of Specific Groups on Family Adjustment

Sr. No.	Group	Ordinal Status of the Group	Family Size	Boys		Girls		Total of B & G	
				No.	Mean	No.	Mean	No.	Mean
1	2	3	4	5	6	7	8	9	10
1.	I	Only Child	F1	50	26.44	50	23.74	100	25.09
2.	I	First Born	F2(M.Sex)	50	28.56	50	32.56	100	30.56
3.	I	First Born	F2(S.Sex)	10	24.30	10	25.00	20	24.65
4.	I	First Born	F3(M.Sex)	25	28.52	25	25.36	50	26.95
5.	I	First Born	F3(S.Sex)	10	22.90	10	18.80	20	20.85
6.	I	First Born	F4(M.Sex)	25	28.52	25	25.36	50	26.94
7.	I	First Born	F4(S.Sex)	10	21.70	10	17.90	20	19.80
8.	I	First Born	F5(M.Sex)	25	20.40	25	16.52	50	18.46
9.	I	First Born	F5(S.Sex)	10	17.70	10	14.10	20	15.90
10.	I	First Born	F6(M.Sex)	25	20.44	25	16.52	50	18.48
11.	I	First Born	F6(S.Sex)	10	17.50	10	13.40	20	15.45
	I	First Born	Total	250	24.95	250	23.20	500	24.07

contd.....

Summary Sheet No. 2 contd.....

1	2	3	4	5	6	7	8	9	10
12.	II	Second Born	F3	31	29.32	41	30.04	72	29.73
13.	II	Second Born	F4 (M.Sex)	31	28.90	31	26.35	62	27.95
14.	II	Second Born	F4 (S.Sex)	36	30.08	36	30.11	72	30.97
15.	II	Second Born	F5	27	28.59	26	25.07	53	26.89
16.	II	Second Born	F6	25	17.56	24	16.33	49	16.99
	II	Second Born	Total	150	27.46	158	26.44	308	26.93
17.	III	Middle Born	F4 (Third born)	30	21.66	30	21.43	60	21.55
18.	III	Middle Born	F5 ,,	25	20.20	20	22.20	45	21.09
19.	III	Middle Born	F5 (Fourth born)	30	14.20	20	28.15	50	19.78
20.	III	Middle Born	F6 (Third born)	25	22.36	20	23.80	45	23.00
21.	III	Middle Born	F6 (Fourth born)	22	24.36	20	22.55	42	23.52
22.	III	Middle Born	F6 (Fifth born)	45	21.28	45	21.13	90	21.21
	III	Middle Born	Total	177	20.53	155	22.76	332	21.27
23.	IV	Last Born	F2	32	20.37	31	20.57	63	24.76
24.	IV	Last Born	F3	27	21.62	21	22.66	48	22.83
25.	IV	Last Born	F4	25	22.04	24	23.87	49	22.11
26.	IV	Last Born	F5	42	25.26	31	23.93	73	24.69
27.	IV	Last Born	F6	32	25.84	31	26.22	63	26.03
	IV	Last Born	Total	158	23.25	138	23.49	296	23.36
			Grand Total	735	24.03	701	23.89	1436	23.96

SUMMARY SHEET NO. 3

Showing an Overall Summary of Results (i.e. Mean Scores on Family Adjustment of each Main and Sub-group)

	Groups	BOYS No.	BOYS Mean	GIRLS No.	GIRLS Mean	TOTAL No.	TOTAL Mean
I	All Boys Vs. All Girls	735	24.03	701	23.89	1436	23.96
II	First Born Vs. Other Later Born Siblings	500	24.08	936	23.90	1436	23.96
III	Only Child Vs. Other First Born	100	25.09	400	23.82	500	26.08
IV	Only Child Vs. Other First Born (Boys) (Boys)	50	26.44	200	24.58	250	24.95
V	Only Child Vs. Other First Born (Girls) (Girls)	50	23.74	200	23.07	250	23.20
VI	First Born Vs. First Born of Mixed Sex of Same Sex	300	25.32	100	19.33	400	23.82
VII	Only Child Vs. Later Born (Excluding First Born)	100	25.09	936	23.90	1036	24.02
VIII	First Born Vs. Youngest	500	24.08	296	23.38	796	23.81
IX	Youngest Vs. Second Born and Middle Born	296	23.38	640	24.15	936	23.90
X	Youngest Vs. Only Child	296	23.38	100	25.09	396	23.80
XI	First Born Boys Vs. First Born Girls	250	24.95	250	23.20	500	24.08
XII	Second Born Boys Vs. Second Born Girls	150	27.46	158	26.44	308	26.93
XIII	Middle Born Boys Vs. Middle Born Girls	170	20.53	155	22.76	332	21.57
XIV	Later Born (Youngest) Boys Vs. Later Born (Youngest) Girls	158	23.25	138	23.49	296	23.36

As noted above, the first two Summary Sheets give a general picture of all data obtained. However, the statistical analysis takes into account only the data of the groups as presented in Summary Sheet No. 3.

The first row (Group I) of the Summary Sheet No. 3 gives on the whole the mean scores (FA) of boys and girls and the corresponding table No. 1 shows the results of statistical analysis of overall data presented sex-wise and birth order-wise in tables 1(a), 1(b) and 1(c) and also of same data presented sex-wise and family size-wise in tables 1(d), 1(e) and 1(f). Table 1 gives an overall analysis of data to show contribution of birth order as well as family size for each sex.

The next nine rows - Groups II to X - of Summary Sheet No. 3 and corresponding tables 2 to 10 present data (Sex X Birth Order) to enable the reader to make comparison between different birth orders for each sex, irrespective of family size.

The last four rows of Summary Sheet No. 3 - Groups XI to XIV - and corresponding tables 11 to 14 present data (Sex X Family Size) enabling us to understand the contribution of family size for each sex separately at each birth order.

In other words, scores on family adjustment have been analysed with respect to two variables, viz. birth order and family size for each sex, separately studied. The results

showing sex differences and birth order effects have been presented in tables 2 to 10. In tables 2 to 10, the comparison have been made to find out whether birth order is related to family adjustment on the whole ot at any level of sex for any sub-group in birth category irrespective of family size. Similarly, scores on family adjustment have been analysed with respect to two variables, viz. sex and family size, studied separately at each birth order. These results have been presented in tables 11 to 14. In short, the scores on family adjustment were subjected to the statistical technique of analysis of variance (F-Test) and also to L.S.D. Test were needed (Specimen computations are shown in Appendix VII). All These results have been reproduced in respective (FA) tables from Nos. 1 to 14.

The results have been discussed with respect to studying the contribution or relation of sex and birth order (or their interaction) to the family adjustment of individuals belonging to different ordinal status and coming from varied family sizes. Thus, the adjustment scores of all the fourteen group comparisons shown in the Summary Sheet No. 3 have been analysed and subjected to F-Test with a view to testing the significance of their differences, if any, in family adjustment of individuals of varied family size and birth order, and the results have been presented respectively for each of these fourteen groups in tables 1 to 14. Wherever needed, on finding overall significance difference between the groups from F-Test, a

further statistical tool called 'Least Significant Difference Test' has been utilized to check the significance of difference between any two groups at a time within the set of more than two main or sub-groups. The tables 1 to 14 have been presented, each with three parts, viz. (a) showing mean scores of each main and sub-group; (b) showing the summary of results of analysis of variance performed on the data of groups shown in (a); and finally wherever needed, (c) showing results of L.S.D. Test.

RESULTS AND DISCUSSION

I. Overall Analysis

The overall, general picture emerging from the analysis of all data on family adjustment is revealed in the general Summary Sheets (Nos. 1, 2 and 3) showing the mean scores of each main and sub-group of birth order, sex-wise, and family size-wise. However, the data of only fourteen groups as shown in Summary Sheet No. 3 (FA) have been statistically analysed to study the effects of birth order and sex, and where possible, of family size. (FA) Tables 1(a), 1(b) and 1(c) show the summary results of the statistical analysis of data on family adjustment as related to sex and birth order, while (FA) tables 1(d), 1(e) and 1(f) give results of statistical analysis of data of sex and family size, as presented in the following pages.

Summary Sheet No. 3 (FA) reveals in the first row how boys and girls on the whole stand on the family adjustment scores. Results revealed lack of significant sex differences

in family adjustment. This total is broken up birth order-wise for boys and girls to make comparison between different birth order categories as shown in the next nine rows (2 to 10) in Summary Sheet No. 3 (FA). The same sex-wise and birth order wise overall data are represented also in (FA) table 1(a). It would be seen from these data that the second-born were found most adjusted; next best were the first-born and the last-born standing nearly close to each other without much difference on adjustment; the middle-born were observed to be the last on family adjustment score, in comparison to other groups. All these differences in birth order were statistically also significant.

The same overall data have been rearranged again sex-wise and family size-wise in (FA)table 1(d) for overall picture and later on broken up at each birth order in last four rows (11 to 14) of Summary Sheet No. 3 (FA). The overall analysis of data in (FA) 1(d) for family size shows that children of F2 were the most adjusted; next in order were F3, F4 and F1, all these being almost equal; least adjusted was F6 and almost equal but last but one was F5. All these differences in family size were statistically also significant.

Results of statistical analysis are given below in (FA) tables 1(a) to 1(f), and have been discussed in details to being out the contribution of each of the factors, viz. sex, birth order and family size, to the family adjustment.

(FA) Table 1(c) - Showing Results of Least Significant Difference Test

Birth Order-wise

Group	Boys Significant at	Girls Significant at	Total Significant at
First-born - Second-born	.01 level	.01 level	.01 level
First-born - Middle-born	.01 level	Not Sig.	.01 level
First-born - Last-born	Not Sig.	Not Sig.	Not Sig.
Second-born - Middle-born	.01 level	.01 level	.01 level
Second-born - Last-born	.01 level	.01 level	.01 level
Middle-born - Last-born	.01 level	Not Sig.	.01 level

Sex-wise : Among First-born : B-G : Sig. at .05
Second-born: B-G : Not Significant
Middle-born: B-G : Sig. at .05
Last-born : B-G : Not Significant

Apparently, the overall picture of data in these sub-groups did not show much considerable difference in some categories of birth order or family size and showed some wider difference in a few cases. In order to have a true picture, all these scores were statistically analysed and subjected to F-Test as well as LSD Test where possible. The results of statistical analysis on these general data, sex-wise and birth order-wise have been summarised in tables 1(a), 1(b) and 1(c); and similarly the results of statistical analysis of some general data, sex-wise and family size-wise have been summarised in tables 1(d), 1(e) and 1(f). Table 1(aO shows the mean

scores of boys and girls on each birth order position. Table 1(b) shows the results of analysis of variance on data of Table 1(a). Table 1(c) shows the results of application of L.S.D. Test to find out which pairs were significantly different, after knowing the overall significant difference in Table 1(b). Similarly, Table 1(d) shows the mean scores of boys and girls of each family size. Table 1(e) shows the results of analysis of variance on data of Table 1(d). Table 1(f) shows the results of application of L.S.D. Test. The overall findings for sex, birth-order and family size have been discussed in the following paragraphs.

(a) Sex Factor

It would be seen from Table 1(b) that sex was not a significant variable in family adjustment. Both boys and girls scored almost equally (24.03 and 23.89 respectively). This means that on the whole boys did not differ from girls in family adjustment. Analysing the results sex-wise for each birth order as in Table 1(c), boys did not show significant differences from girls in adjustment excepting the first-born and middle-born group of boys and girls (just significant at .05 level). The first-born boys scored higher (24.95) than first-born girls (23.20). The middle-born group has been the least adjusted group as revealed by statistical findings noted below; but at this position, girls scored higher than boys (22.76 of girls against 20.53 of boys). This reveals that the

least adjusted were the middle-born boys in the family. In other words, among the first-born the boys scored significantly higher than the girls and among the middle-born, the girls scored significantly higher than boys; thus cancelling apparently the sex differences; at other birth orders, there were no sex differences. Thus, on the whole, there did not appear sex differences, but significant birth order and significant interaction.

(b) Birth Order

The finding of the greatest importance in this study is that the order of birth was the significant factor contributing to family adjustment, as revealed in Table 1(b). From data in Table 1(a), it would be then statistically inferred that the second-born was the most adjusted (with 26.93 mean score), the first-born and the last-born nearly equal were next best (24.08 and 23.36 respectively), and the middle-born were the least adjusted (21.67) in comparison to other groups. To understand the statistical significance of each pair of birth order positions, the results were subjected to L.S.D. Test (extension of T-test). These results are shown in Table 1(c). It would be seen from Table 1(c) that all pairs of birth order differed from one another on the total omitting the first-born-last-born pair. This means that birth order was a significant factor except that the first-born did not differ from the last-born in this study. This lack of difference between the first-born and the last-born

is not expected. However, it might be that both the first born and the lastborn in our society sampled for the study are treated almost equally in the family environment, i.e. might be equally fonded, equally protected and attended to or equally spoiled, being the first or the youngest.

However, the contributory role of this significant birth order only could not be much emphasized on its own in view of next statistical finding that there was significant interaction between the sex and the birth order as revealed in Table 1(b). In such a case, we cannot hurriedly infer that sex is insignificant and birth order is significant as revealed in Table 1(b).

The situation in this case could be explained better from closer observation and analysis. It would be seen from Table 1(a) that boys scored higher than girls at first and second order position, while girls scored somewhat higher than boys at middle and last position. This accounts for significant interaction between sex and birth order. In other words, sex by itself would be insignificant but in interaction with significant birth order, sex would play significantly. This could be better understood from results in Table 1(c). When birth order was kept constant, boys and girls did not show differences except in first-born and middle-born group of boys and girls, as noted also above. This means, sex was significant in some cases,

though not on the whole. Further, when data were analysed birth order-wise for each sex, among boys, all pairs of birth order differed from each other except the first-born pair; and the last-born pair while among the girls, only second-born group differed from each of other three groups and no other comparison showed significant differences in family adjustment for girls. Thus, birth order was significant in most cases, but somewhat insignificant in a few cases where it became significant on interaction with sex. This clarifies the significant interaction between the sex and the birth order. Thus, on the whole, it can be summarized that sex did not play much significant role in family adjustment except in case of middle-born group; and that the birth order was mostly a significant, contributory factor, noting also that the firstborn did not differ much from the lastborn both among boys and girls.

(6) Family Size

The earlier section discusses the role of birth order in family adjustment of boys and girls and reveals that the secondborn children were usually most adjusted amongst all groups. This raises the question whether the most adjusted is the secondborn child in a family with a size of two children or more than two children. In other words, it is the question regarding the role of another equally important variable, viz. family size, that has

been recently propagated by the government and all social work agencies in our country today. In order to answer this question, data were rearranged so as to analyse the adjustment scores of boys and girls coming from families of different sizes. The results of such analysis of data (family size X sex) have been summarized in Tables 1(d), 1(e) and 1 (f) presented in the following pages. Table 1(d) shows the mean scores of boys and girls from families of different sizes, viz. F_1, F_2, F_3, F_4, F_5, and F_6. Table 1(e) gives a summary of results of statistical analysis of variance on these data and Table 1(f) reveals the results regarding the significance of difference of two means on application of L.S.D. Test,

(FA) Table 1(d) - Showing Mean Scores of Groups (Family Size X Sex) on Family Adjustment

Family Size	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
F1	50	26.44	50	23.74	100	25.09
F2	92	25.25	91	27.65	183	26.33
F3	93	26.18	97	26.08	190	26.13
F4	157	26.30	156	25.19	313	25.75
F5	159	21.70	132	22.38	291	22.02
F6	184	21.77	175	20.75	359	21.27
Total	735	24.03	701	23.89	1436	23.96

(FA) Table 1 (e) - Showing the Summary of Results of Analysis of Variance (Family Size X Sex)

Source	df	S.S.	M.S.	F.Ratio	Signifinan
Sex	1	7.23	7.23	0.08	N.S.
Family Size	5	6854.92	1370.98	16.1	.001
Sex X Family Size	5	619.75	123.95	1.4	N.S.
Within (error)	1424	120622.4	84.77		
Total	1435	128104.3			

(FA) Table 1 (e) - Showing Results of L.S.D. Test Family Size-wise

	Boys	Girls	Total		Boys	Girls	Total
F1-F2	NS	Sig..01	N.S.	F2-F6	Sig.01	Sig.01	Sig.01
F1-F3	NS	Sig..05	NS	F3-F4	NS	NS	NS
F1-F4	NS	NS	NS	F3-F5	Sig.01	Sig.01	Sig.01
F1-F5	Sig.01	NS	Sig.05	F3-F6	Sig.01	Sig.01	Sig.01
F1-F6	Sig.01	Sig.05	Sig.01	F4-F5	Sig.01	Sig.05	Sig.05
F2-F3	NS	NS	NS	F4-F6	Sig.01	Sig.01	Sig.01
F2-F4	NS	NS	NS	F5-F6	NS	NS	NS
F2-F5	Sig.01	Sig.01	Sig.01				

Sex-wise :
For F1, B-G : Sig. .05
For F2, B-G : NS
For F3, B-G : NS
For F4, B-G : NS
For F5, B-G : NS
For F6, B-G : NS

The analysis again confirms that sex was not a significant factor and reveals that only family size was the most contributing factor for family adjustment, without any significant interaction with sex as observed from Table 1(e). Again, it is seen from Table 1(d) that among the various family sizes, F_2 (family size with two children) had the most adjusted children (with a mean score of 26.33). This finding read with the earlier finding on the birth order (second born being the most adjusted) means that the secondborn or individual in F_2 was the most adjusted. This is further confirmed by the later analysis of data of children separately for each birth order (Tables 2 to 14). In other words, the recent slogan 'only two and not more' with respect to propaganda on family planning receives a strong experimental evidence with clear statistical confirmation.

The closer observation of results in Table 1(d) shows that the group next to F_2 in family adjustment is F_3 (score being 26.13), then in order are F_4 (score being 25.75), F_1 (score being 25.09), F_5 (score being 22.02) and last F_6 (score being 21.27) on the whole. There is a slight discrepancy between the family size orders separately among boys and girls, but in view of lack of significant interaction between family size and sex, this discrepancy is not worth considering though F_2 girls top the list in contrast to F_1 boys topping the list. The

results in Table 1(f) show pairs significantly differing from each other. It would be seen that sexwise, there are no differences in any family size except F_1(boys scoring 26.44 at top and girls scoring 23.74 standing fourth). Family size-wise there appear two distinct groups, viz., F_1, F_2, F_3 and F_4 forming one group not mutually differing from one another, and F_5 and F_6 forming another group not mutually differing from each other, though these two groups differ from each other, excepting a few discrepancies due to F_1 boys topping the list in contrast to F_2 girls topping the list.

From the above discussion, it is observed in general that sex is not playing any significant role by itself in family adjustment. The only significantly contributing variables in the present study are birth order and family size. Further, results show significant interaction of sex with birth order but not with family size as seen from the analysis of data in two ways, viz. (i) sex X birth order, and (ii) sex X family size). However, at this point a question may be raised to study results and analyse data ~~at a time~~ simultaneously, thus :

Sex X birth order X family size that would enable the investigator to find out at the same the main effects, first order interaction of two factors as well as the second order interaction of all the three factors together, which has not been found still. It should be however

noted that such analysis to study all three factors and the three factor interaction is not possible in this case, since it is not conceivable to have all family sizes in each birth order, both being incompatible. Hence, the data have been separately analysed once for sex X birth order and next for sex X family size. Results are convincing by themselves. Yet to answer this issue indirectly, the data have been analysed in the following sections so as to study effect of sex and family size at each birth order (Tables 2 to 14).

II. ANALYSIS FOR COMPARISON BETWEEN BIRTH ORDER GROUPS

The figures in Table 1 above shows the significance of results from an overall analysis of sexwise and birth orderwise data at a time. However, to study the significance of results between birth order groups and thereby confirming the findings of overall analysis, data were further arranged and analysed so as to yield comparative picture showing how one birth order position stands in relation to each of the other position for boys and girls. These data are represented in rows 6 to 14 of general summary sheet No.3 and after having been statistically analysed, the results are presented in Tables 2 (a), 2(b) and 2 (c) - thus (a) showing mean scores, and (b) showing results of analysis of variance there upon and (c) showing results

of L.S.D. Test. Each of pair-comparisons of birth order has been discussed below.

(a) Comparison Between the First-born and the Other Later-born

For this purpose all data were arranged sexwise into two groups of birth-order, viz. (i) all the first born on one side, and (ii) the remaining later-born on the other side, i.e. the total of second, middle and last born children as shown in Table 2 (a). Again, these data were subjected to the analysis of variance as well as L.S.D. Test. The results have been shown in Tables 2 (b) and 2 (c) below.

Group II : First Born Vs. Other Later Born Siblings
(Sex Vs. Birth Order)

(FA) Table 2 (a) - Showing Mean Scores

Birth Order	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
First Born	250	24.95	250	23.20	500	24.08
Later Born	485	23.56	451	24.27	936	23.90
Total	735	24.03	701	23.89	1436	23.96

(FA) Table 2 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	7.28	7.28	0.081	Not Sig.
Order of Birth	1	9.57	9.57	0.107	Not Sig.
S X O	1	493.05	493.05	5.52	Sig. at .01
Within	1432	127594.43	89.10		
Total	1435	128104.33			

(FA) Table 2 (c) - Showing Results of L.S.D. Test

(Sex-wise)

Among First Born, B - G : Significant at .05

Among Later Born, B - G : Not Significant

(Birth Order-wise)

Among Boys, First Born - Later Born : Sig. at .05

Among Girls, First Born - Later Born : Not Sig.

Again, it would be seen from Table 2(b) that sex did not played an important role in family adjustment; both boys and girls were almost same (24.03 and 23.90) on their scores in family adjustment, as revealed also in overall analysis from Table 1(b). However, strangely the birth order also turned out in this analysis to be an insignificant factor. But this should not worry us any more as it can be understood in right perspective from the next finding, viz., significant interaction of the sex and the birth order. Examining the contents in the cells of Table 2(a), it would be seen that the first born boys scored somewhat higher (24.95) than later born boys (23.56) as well as significantly higher than firstborn girls (23.20) on family adjustment test, while later-born girls tended to score somewhat higher (24.27) than first-born girls (23.20) as well as somewhat higher than later born boys (23.56). Results in Table 2(c) show some of these cell differences significant. This accounts for significant interaction between the sex and the birthorder. Thus, it may be safe to say that, as found earlier from Table 1(b), the sex might be insignificant by itself, and the birth order would be definitely significant both by itself as well as significant in interaction with the sex, though its independent significance is obscurred in this case due to totalling of scores of all later-born.

Thus, comparing earlier findings from analysis of data in Table 1, it would be noted that separately birth

order at each level was significant, all pairs-comparisons showed significant difference, except the first-born- last born pair. However, when scores of all second-born (most adjusted), middle-born (least adjusted) and lastborn (not different from first-born) are totalled up as scores of later born for comparison with scores of the first-born in this analysis, it would be natural that the significance of earlier individual difference will be lost in average due to different directions of differences, though they are significant differences separately. This accounts for significant interactions. It would be noted that the first-born boys were the most adjusted, and the first-born girls tended to be the least adjusted among the four groups.

(b) Comparison Between the Only Child Group and the Other First-born Group

The results of similar analysis of data arranged for comparison between the only children on one side and the other first-born on the other have been presented in Tables 3 (a), 3 (b), and 3 (c) below.

Group III : Only Child Vs. Other First-born

(Sex Vs. Birth Order)

(FA) Table 3 (a) - Showing Mean Scores

Birth Order	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
Only Child	50	26.44	50	23.74	100	25.09
Other First Born	200	24.58	200	23.07	400	23.82
Total	250	24.95	250	23.20	500	24.08

(FA) Table 3 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	381.93	381.93	2.83	Not Sig.
Order of Birth	1	128.02	128.02	.800	Not Sig.
S X O	1	28.33	28.33	.177	Not Sig.
Within	496	79364.68	160.01		
Total	499	79902.96			

Hereto, there were no significant sex differences; nor were also revealed the birth order differences; there was not even significant interaction between the two. In other words, the only child group in no way differed from the other first-born group; both variables, viz., sex and birth order position had no effect on family adjustment. Thus, though the first-born child is followed later by other children, in contrast to the only child not followed by any, thereis no difference between the two. This is what is expected, since during the early years of adjustment process taking shape, both are as good as only child~~-order~~ren, so to say.

A closer analysis of data in Table 3(a) however, revealed a tendency among the only children to be somewhat more adjusted (25.09) than the other first-born (23.82) on the whole as well as among boys and girls separately; again, boys were somewhat more adjusted than girls both among the only children and the first group, thus only boys were most adjusted (26.44) and first-born girls were least adjusted (23.07) among the four groups, though all these differences did not turn out sufficiently statistically significant.

(c) Comparison Between the Only Born Boys and the First-born Boys

The above group of total of the only born boys and girls vs. total of first-born boys and girls were separated

Group IV : Only Boys Vs. Other First Born Boys

(FA) Table 4 (a) - Showing Mean Scores

Birth Order	No.	Mean
Only Child Boys	50	26.44
First Born Boys	200	24.58
Total	250	24.95

(FA) Table 4 (c) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Between Group	1	138.31	138.31	0.94	Not Sig.
Within	248	36628.12	147.10		
Total	249	36766.43			

Group V : Only Child (Girls) Vs. Other First Born (Girls)

CFA) Table 5 (a) - Showing Mean Scores

Birth Order	No.	Mean
Only Girls	50	23.74
First Born Girls	200	23.07
Total	250	23.20

CFA) Table 5 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Between Group	1	17.96	17.96	.104	Not Significant
W ithin	248	42736.64	172.32		
Total	249	42754.60			

out into two categories, viz. (i) only born boys Vs. first-born boys, and (ii) only born girls and first-born girls. Data for boys are presented in Tables 4 (a) and 4 (b).

Analysis of data of only born boys Vs. first-born boys revealed no differences between the two groups (Tables 4 (a, b). However, there is a trend among only boys to be somewhat more adjusted than first-born boys. This confirms the finding from analysis of data in Table 4(b).

(d) Comparison Between the Only Born Girls and the First-born Girls

Similarly, data of these two groups of girls are presented in Tables 5 (a) and 5 (b). This analysis also revealed no significant differences between the two groups. Both groups were almost same. This confirms the finding from analysis of data in Table 3 (b).

(e) Comparison Between the First-born Children of Mixed Sexes and the First-born Children of Same Sex

Further, it was thought that perhaps the children of mixed sexes (boys and girls together) in a family might differ from children of same sex (either all boys or all girls) being reared together. This would be revealed in the traits of the first-born child as affected by later

children of mixed sexes or of his/her own sex among the siblings in the family. In order to study this hypothesis, all first-born children were arranged into two groups according to the first-born followed by children of mixed sexes or of same sex. These data are presented in Table 6 (a) and the results of statistical analysis on these data are given in Table 6 (b) in the following pages.

This analysis revealed highly significant differences between the two groups. It is seen that the first-born children liging in the family with siblings of mixed sexes showed better family adjustment (score of 25.32) than the first-born living in the family with siblings of his or her own sex (score of 19.33). This is as per expectation, since family environment of mixed siblings provide wider opportunities and experiences for adjustment than limited environment and of his or her own sex. This is really a unique and very interesting finding.

Group VI : First Born of Mixed Sex Vs. First Born of Same Sex

(CFA) Table 6 (a) : Showing Mean Scores

Birth Order	No.	Mean
First Born of Mixed Sex	300	25.32
First Born of Same Sex	100	19.33
Total	400	23.82

(FA) Table 6 (b) : Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Between Group	1	2694.0	2694.0	16.6	Significant at .01
Within	398	64559.75	162.21		
Total	399	67253.75			

(f) Comparison Between the Only Child Group And the Later-born (excluding the first-born)

It was thought worthwhile to compare the only child- only one in the family - with the children in families of more children. Hence, data were arranged so as to study the only group in relation to the later-born group as in II (a) above showing comparison between the first-born and the later-born. The results of analysis of these data are presented in Tables 7 (a), 7 (b) and 7 (c) in the following pages.

Results of this analysis turned out similar to those in II(a) comparison of Tables 2 (a), (b) and (c). Sex was insignificant; strangely birth-order also appeared insignificant and there was significant interaction at .05 level between the sex and the birth order. This would be explained as earlier; only boys secured significantly higher scores (26.44) than later-born boys (23.56), while later-born girls tended to score higher (24.27) than only girls (23.74). Similarly, only boys scored significantly higher (26.44) than only girls (23.74), while later-born girls tended to score higher (24.27) than later-born boys (23.56). This accounts for significant interaction in this case, on same lines as in case of comparison between the first-born and later-born in II (a) above. Thus, this insignificant birth order should

Group VII : Only Child Vs. Later Born (Excluding First Born)
Sex Vs. Birth Order

(FA) Table 7 (a) - Showing Mean Scores

Birth Order	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
Only Child	50	26.44	50	23.74	100	25.09
Later Born	485	23.56	451	24.27	936	23.90
Total	535	23.83	501	24.22	1036	24.02

(FA) Table 7 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	39.20	39.20	.67	Not Sig.
Order of Birth	1	126.60	126.60	2.16	Not Sig.
S X O	1	261.48	261.48	4.48	Sig. at .05
Within	1032	60412.30	58.53		
Total	1035	60839.58			

(FA) Table 7 (c) - Showing Results of L.S.D. Test

(Sex-wise)

Among only Children, B - G : Sig. at .05

Along Later Born, B - G : Not Sig.

(Birth Order-wise)

Among Boys, Only - Later : Sig. at .05

Among Girls, Only - Later : Not Sig.

again not be contrived as inconsistent with the significant birth order found in general analysis of results in Table 1.

It would be noted that only boys, like the first-born boys in Table 2(a), were most adjusted, and least adjusted were the later born boys among the four groups, unlike that in Table 2(a) where the first-born girls tended to be the least adjusted.

These results in Table 7 (only later born) parallel to results in Table 2 (first later-born) above are as expected because of no significant differences between only children and first-born children as observed in Table 3.

(g) Comparison Between the First-born and the Last-born (Youngest)

Next, data were arranged and analysed to bring out comparison between the first-born and the last born. Results are summarized in Tables 8 (a), 8 (b) and 8 (c) below.

Group VIII : First-Born Vs. Last-Born (Youngest)

(Sex Vs. Birth Order)

(FA) Table 8 (a) - Showing Mean Scores

Birth Order	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
First-born	250	24.95	250	23.20	500	24.08
Last-Born (Youngest)	158	23.25	138	23.49	296	23.38
Total	408	24.29	388	23.30	796	23.81

(FA) Table 8 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	194.84	194.84	1.79	Not Sig.
Order of Birth	1	93.64	93.64	0.86	Not Sig.
S X O	1	191.09	191.09	1.74	Not Sig.
Within	792	96219.90	108.86		
Total	795	96699.37			

The statistical analysis (F-test) showed no significant differences anywhere between the sex, between the birth order or in interaction. Even the further analysis by L.S.D. Test showed nowhere significant differences in case of any pair. In other words, the first-born were almost similar to the last born in family adjustment. This confirms the earlier finding of general analysis in Table 1. This revelation has not been commonly expected. However, on the basis of data of subjects sampled for this study, it can be said that the first born got the same treatment as the last-born (youngest), both being either equally fondled, equally cared for, protected and attended to, or equally spoiled, and if there was such rearing, being the first or the youngest child, would make no difference as far as family adjustment is concerned.

(h) Comparison Between the Last-born and the Aggregate of the Second and Middle Born

These data are tabulated in Table 9 (a) and results of statistical analysis are summarized in Tables 9 (b) and 9 (c) below.

Group IX : Last Born (Youngest) Vs. Second Born and Middle Born

Sex Vs. Birth Order

(FA) Table 9 (a)-Showing Mean scores

Birth Order	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
Youngest	158	23.25	138	23.49	296	23.36
Second Born & Middle Born	327	23.70	313	24.62	640	24.15
Total	485	23.56	451	24.27	936	23.90

(FA) Table 9 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	118.43	118.43	2.35	Not Sig.
Order of Birth	1	125.23	125.23	2.59	Not Sig.
S X O	1	18.09	18.09	0.35	Not Sig.
Within	932	47930.04	51.42		
Total	935	48191.79			

(FA) Table 9 (c) - Showing Results of L.S.D. Test (Sex-wise)

Among Last Born, B-G : Not Sig.

Among Second Born & Middle Born B-G : Not Sig.

(Birth Order-wise)

Among Boys, Last-Second and Middle : Not Sig.

Among Girls, Last-Second and Middle : Not Sig.

Again, the statistical analysis strangely showed no differences anywwhere in sex, birth order or interaction. However, the results of this analysis do not seem to be consistent with results of general analysis in Table 1 above, which revealed significant differences between the last born and the second born as well as the last born and the middle born in Table 1 (c). This apparently inconsistent situation is similar to apparently inconsistent situation observed in results of group II in Table 2 showing comparison between the first born and the later born. Individual pairs were significantly different, but when combined, the results turned out to be insignificant- It would be noted from Table 2(a) that the second born scored higher (26.93) than the last born (23.36), but the middle born scored less (21.57) than the last born. Thus the score of the last born (23.36) would not, on an average, differ from the aggregate average score (24.15) of the second and middle born together. This accounts for above apparent discrepancy. In short, individually, the last born differed from the more adjusted second born or the less adjusted middle born, but it showed no difference in adjustment when the scores of both the second born and the middle born were combined for comparison.

(i) Comparison Between the Last born (Youngest) & the Only Child Group

Just as the only child group was compared with the other first born, it has been thought to compare the only child group with the last-born. In view of the fact that the first-born and the only child did not differ as shown in Tables 3, 4 and 5, it was expected that the last-born would not differ from the only child. The data for this comparison between the last-born and the only child hroup are presented in Tables 10 (a), 10 (b) and 10 (c) in the following pages.

Analysis showed usual lack of significant sex differences, and also lack of significant interaction. The expected significance of differences in birth order (which was not observed between first-born and only child in Table 3) was observed significantly in these two birth orders at .05 level. In view of insignificant interaction, this significant difference in birth order is established beyond doubt. It would be seen that only children scored significantly higher (25.09) than the last-born (23.38) on the whole. However, within the cells shown by L.S.D. Test in Table 10 (c), only boys scored significantly higher (26.44) than last-born boys (23.25) as well as last-born girls (23.49) and also

Group X : Last Born (Youngest) Vs. Only Child
Sex Vs. Birth Order

(FA) Table 10 (a) - Showing Mean Scores

Birth Order	Boys		Girls		Total	
	No.	Mean	No.	Mean	No.	Mean
Youngest	158	23.25	138	23.49	296	23.38
Only Child	50	26.44	50	23.74	100	25.09
Total	208	24.02	188	23.55	396	23.80

(FA) Table 10 (b) -Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	21.40	21.40	0.28	Not Sig.
Order of Birth	1	221.58	221.58	3.00	Sig. at .05
S X O	1	164.85	164.85	2.22	Not Sig.
Within	392	29037.81	74.07		
Total	395	29445.64			

(FA) Table 10 (c) - Showing Results of L.S.D. Test (Sex-wise)

Among Last Born,	B-G :	Not Significant
Among Only Children (Birth Order-wise)	B-G:	Significant at .05
Among Boys,	Last-Only	Significant at .01
Among Girls,	Last-Only	Not Significant

only girls (23.74) among four groups; last-born boys (23.25) did not differ from last-born girls (23.49); and last-born girls (23.49) did not differ from only girls (23.74).

It might be logically surprising to observe significant birth order differences in this case between the last-born and the only child group (in Table 10), when there were no such birth order differences between the first-born and the only child group (in Table 3) in view of no differences between the first-born and the last-born (in Table 8). However, this can be explained with closer analysis of data in these comparisons. In Table 3 comparing the only child and the first-born, it has been noted that only child tended to score somewhat higher (25.03) than the first-born (23.82) though not significant and similarly in Table 8 comparing the first-born and the last-born, it was also observed that the first-born tended to be slightly more adjusted (24.08) than the last-born (23.38) (though not significantly). When taken together, the total distance between the more adjusted only child having 25.09 score and the lesser adjusted last-born child having score of 23.38 (with 24.08 of first-born in between) would be sufficiently wide enough to show significant difference; and this is what has been revealed by above analysis in Table 10. In short, the only boys were the most adjusted (26.44), and last-born boys were the least adjusted (23.44) among the four groups.

III. Analysis for Comparison Between Family Sizes

The preceding sections have been devoted to the discussion of family adjustment of children as related to their sex and birth order position. However, equally important processes in the family is the size of the family. In the earlier discussion on the birth order, it has been already found that the second-born is the most adjusted member in the family, indirectly hinting tnat a family with a size of two children is the most desirable expectation. In order to study the influence of the family size directly and more systematically, the data obtained were classified further according to the family adjustment of boys and girls in families of various sizes ranging from one child to six or more in the family, and analysed at each birth order as given below.

Family Size

(a) Within the First-born

Such data for the first-born boys and girls are represented in Table 11 (a) below showing the mean scores of first-born boys and girls in family sizes with one, two, three, four, five and six or more children. It would be argued that the first-born in F_1 being the only child should not be included in this analysis or the first-born just as being the last-born ~~first~~ second-born of F_2 or third born of F_3 and so on are not included in analysis of seoond born and so on as shown in later sections in Tables 12, 13 and 14. However, as shown by earlier analysis in Table 3, the only child did

not in any way differ from the first-born, the first-born of F_1 were included here. All these data were subjected to statistical techniques of F-Test and L.S.D. Test to find the significance of differences and the summary of result has been given in Tables 11 (b) and 11 (c) in the following pages.

This analysis confirms the sex differences in adjustment among the first-born children, as observed earlier in results shown by Tables 1 (c) between boys and girls at the first order position. Thus, first-born boys significantly were more adjusted (24.95) than first-born girls (23.20) on the whole. Even when data were separately analysed sexwise for boys and girls at each family size as shown in Table 11 (c), there are found significant sex differences at each level of family sizes, at each level boys scoring higher than girls except F_2 where girls scored higher (31.30) than boys (27-85). In short, there are significant sex differences at .05 level among children of each level of family sizes.

Next, the family size is a significantly contributing factor to the family adjustment on the whole as shown in Table 12 (b). The detailed analysis of the same data for comparing each family size with every other, as done in Table 1 (d) for family size differences also showed that almost all pairs significantly differed from the other excepting F_1 and F_3, F_1 and F_4, F_3 and F_4, F_5 and F_6.

Boys

Group XI : First Born Vs. First Born Girls
Sex Vs. Family Size
Family Adjustment Inventory

(FA) Table 11 (a) : Showing Mean Scores

Family Size	Boys No.	Boys Mean	Girls No.	Girls Mean	Total No.	Total Mean
F1	50	26.44	50	23.74	100	25.09
F2	60	27.85	60	31.30	120	29.57
F3	35	26.91	35	23.48	70	25.20
F4	35	26.57	35	23.23	70	24.90
F5	35	19.62	35	15.83	70	17.72
F6	35	19.60	35	15.63	70	17.61
Total	250	24.95	250	23.20	500	24.07

(FA) Table 11 (b) : Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F-Ratio	Remarks
Sex	1	381.92	381.92	4.28	Sig. at .05 level
Family Size	5	4354.47	870.89	9.77	Sig. at .01 level
S X F	5	31696.23	6339.24	71.17	Sig. at .01 level
Within	488	43470.34	89.07		
SS_T	499	79902.96			

Group XI contd.....

(FA) Table 11 (c) : Showing Results of Least Significant Difference Test

(Family Sizes)

Groups	Boys	Girls	Total
1. F1 - F2	Not Sig.	Sig. at .01	Sig. at .01
2. F1 - F3	Not Sig.	Not Sig.	Not Sig.
3. F1 - F4	Not Sig.	Not Sig.	Not Sig.
4. F1 - F5	Sig. at .01	Sig. at .01	Sig. at .01
5. F1 - F6	Sig. at .01	Sig. at .01	Sig. at .01
6. F2 - F3	Not Sig.	Sig. at .01	Sig. at .01
7. F2 - F4	Not Sig.	Sig. at .01	Sig. at .01
8. F2 - F5	Sig. at .01	Sig. at .01	Sig. at .01
9. F2 - F6	Sig. at .01	Sig. at .01	Sig. at .01
10. F3 - F4	Not Sig.	Not Sig.	Not Sig.
11. F3 - F5	Sig. at .01	Sig. at .01	Sig. at .01
12. F3 - F6	Sig. at .01	Sig. at .01	Sig. at .01
13. F4 - F5	Sig. at .01	Sig. at .01	Sig. at .01
14. F4 - F6	Sig. at .01	Sig. at .01	Sig. at .01
15. F5 - F6	Not Sig.	Not Sig.	Not Sig.

Groups (Sex)

In F1, B-G : Sig. at .01
In F2, B-G : Sig. at .01
In F3, B-G : Sig. at .05
In F4, B-G : Sig. at .05
In F5, B-G : Sig. at .01
In F6, B-G : Sig. at .01

The family with two children was the most adjusted (29.57) and scored significantly higher than any other level. Next best were F_3, F_1 and F_4 which were almost equal. Least adjusted were F_5 and F_6 both of which were also almost equal in family adjustment. It would be also seen that though F_2 was on the whole significantly different from each of other sizes, F_2 boys (27.85) did not differ from F_1 boys (26.44). It was only F_2 girls group (31.30) that differed from F_1 girls group (23.74) that made total F_2 group different from total F_1. Similarly, among boys F_2 group (27.85) and F_3 (26.91) were not different, nor F_2 boys (27.85) and F_4 boys (26.~~85~~ 57) were different. Mostly it was F_2 girls group differing from all other sizes that would account for F_2 differing from other sizes. Any way, for most of cases, the family size was the significant factor, and the F_2 size was the most adjusted; barring the case of F_2 and beginning with F_1, the greater the number, the less the family adjustment.

The above observation regarding the significant role of girls at F2 also accounts mostly for the significant interaction between the sex and the family size. Further, it would be seen from results in Table 11 (c) that both among first-born boys and first-born girls, pairs of sizes 1 and 3, 1 and 4, 3 and 4, and 5 and 6 did not differ significantly; at the same time, in addition to

above, amongst the first-born boys, the F1 and F2, F2 and F3, F2 and F4 also did not differ, and all other pairs did differ significantly; while amongst the first-born girls even the F1 and F2, F2 and F3, and F2 and F4 pairs which did not show significant difference in case of first-born boys were significantly different on family adjustment scores of girls. This also accounts for significant interaction between sex and family size.

Family Size

(b) Within the Second-Born

In analysis of data birth order wise, of usual importance are the groups classified as the first-born (and/or only child), the middle-born and the last-born. However, it was thought by the investigator that like the first-born, perhaps the second-born would have some unique characteristics and hence should not be mixed with the middle-born as usually done. Thus, the data for the second-born have been separately analysed. The results of statistical analysis of the second-born children according to their family size and sex are summarised in Tables 12 (a), 12 (b) and 12 (c) below.

Group XII : Second Born Vs. Second Born Girls
Boys
Sex Vs. Family Size

(FA) Table 12 (a) - Showing Mean Scores

Family Size	Boys No.	Boys Mean	Girls No.	Girls Mean	Total No.	Total Mean
F3	31	29.32	41	30.04	72	29.73
F4	67	29.83	67	28.37	134	29.10
F5	27	28.59	26	25.07	53	26.89
F6	25	17.56	24	16.33	49	16.99
Total	150	27.46	158	26.44	308	26.93

(FA) Table 12 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	65.65	65.65	1.68	Not Sig.
Family Size	3	6052.30	2017.43	51.91	Sig.at .01
S X F	3	196.22	65.40	1.68	Not Sig.
Within	300	11659.73	38.86		
Total	307	17973.90			

contd.....

Group XII contd.....

(FA) Table 12 (c) - Showing Results of L. S. D. Test

Groups	Boys	Girls	Total
F3 - F4	Not Sig.	Not Sig.	Not Sig.
F3 - F5	Not Sig.	Sig. at .01	Sig. at .05
F3 - F6	Sig. at .01	Sig. at .01	Sig. at .01
F4 - F5	Not Sig.	Sig. at .05	Sig. at .05
F4 - F6	Sig. at .01	Sig. at .01	Sig. at .01
F5 - F6	Sig. at .01	Sig. at .01	Sig. at .01

(Sex-wise)

In F3, B - G : Not Significant

In F4, B - G : Not Significant

In F 5, B - G : Significant at .01

In F6, B - G : Not Significant

The analysis revealed that amongst the second-born, sex was not a significant factor nor the interaction. The only factor that played the significant role was the family size as shown by Table 12 (b), again suggesting that the greater the size, the less the adjustment, least being in F6. The closer examination of results in 12 (c) would reveal that all pairs of family size except F3 and F4 differed on the whole. Among the second-born boys, F3 (29.32) and F6 (17.56), F4 (29.83) and F6 (17.56), F5 (28.59) and F6 (17.56) differed from each other; while among the second-born girls all pairs except F3 and F4 differed from each other. In F5, boys (28.59) scoring significantly higher differed from girls (25.07); at no other order, there were sex differences among the second-born among the girls, as also on the whole. Any way, the only significant factor contributing to the family adjustment among the second-born children was the family size.

Family Size
(c) Within the Middle Born

In this study, as noted earlier, the middle-born consisted of all children excepting the first-born, the second-born and the last born, i.e. children in family with sizes of 4, 5 and 6 or more children, excepting the children in the family size of 3, that would become the last born in this case. The second-born were not included among the middle-born in this study since the second-born like the first-born ~~was~~ were thought to be unique for analysis.

The data for the middle-born were also thus analysed and the results have been presented in Tables 13(a), 13(b), and 13(c).

The analysis showed that the sex, the family size and also interaction between the two - all were significant for the family adjustment of the middle-born children. There were significant sex differences, but at this order girls scored significantly higher (22.76) than boys (20.53), like the first-born girls at F2 and unlike usually higher adjustment of boys elsewhere. This sex difference on the whole was mainly due to only significant sex difference at F5 (girls scoring higher (25.17)) than boys (16.92) as shown in Table 13 (a) and confirmed statistically by Table 13(c). There were no sex differences at F4 and F6 sizes.

As usual, the family size was significant on the whole, but strangely F6 stood higher (22.21) not much differing from group F4 (21.55) which stood next; least adjusted here was the group F5 (20.40). This unexpected order of standing is likely because of mixing up of children from various family sizes, i.e. third-born, fourth-born and so on, all treated as the middle-born. The detailed analysis in Table 13(c) showed that F4 and F6 did not differ on the whole as well as among boys and also among girls. However,

F4 and F5 as well as F5 and F6 differed significantly in case of boys and also for girls. In F4-F5 pair, boys of F4 scored significantly higher (21.66) than boys of F5 (16.92), while girls of F5 scored significantly higher (25.17) than that of girls of F4 (21.43) - thus cancelling the overall difference between F4 and F5.

Similarly, in F5 and F6, boys of F6 scored significantly higher (22.30) than that of boys of F5 (16.92), while girls of F5 scored significantly higher (25.17) than that of girls of F6 (22.09) - thus again making total difference between F5 and F6 quite insignificant, as shown in Table 13(c). This accounts for lack of significant difference in each pair of family size in Table 13(c) though family size is significant on the whole in Table 13(b). It also explains significant interaction between sex and family size.

Group XIII : Middle Born Boys Vs. Middle Born Girls
Sex Vs. Family Size

(FA) Table 13 (a) - Showing Mean Scores

Family Size	Boys No.	Boys Mean	Girls No.	Girls Mean	Total No.	Total Mean
F4	30	21.66	30	21.43	60	21.55
F5	55	16.92	40	25.17	95	20.40
F6	92	22.30	85	22.09	177	22.21
Total	177	20.53	155	22.76	332	21.57

(FA) Table 13 (b) - Showing Analysis of Variance for Above Data

Source	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	411.02	411.02	19.12	Sig. at .01
Family Size	2	202.30	101.15	4.70	Sig. at .05
S X F	2	1167.07	583.53	27.15	Sig. at .01
Within	326	7008.88	21.94		
Total	331	8789.27			

(FA) Table 13 (c) - Showing Results of L.S.D. Test

	Group	Boys	Girls	Total
(Size-wise)	F4-F5	Sig. at .01	Sig. at .01	Not Sig. at .01
	F4-F6	Not Sig.	Not Sig.	Not Sig.
	F5-F6	Sig. at .01	Sig. at .01	Not sig. at .01

(Sex-wise)

In F4, Boys and Girls : Not Significant

In F5, Boys and Girls : Highly Significant Beyond .01

In F6, Boys and Girls : Not Significant

The significant interaction can also be explained by the fact that at F4 and F6, the boys tended to score little higher and at F5 the girls significantly scored higher as seen from Table 13 (a).

It would be seen that results of the second-born (as separated from the middle-born) showing only family size to be significant were different from the results of the middle-born, showing all factors - sex, family size and interaction - to be significant. If as usual, the second-born were mixed up with the middle born, the sex which turned out to be significant among the middle born (boys scoring 20.53 and girls scoring 22.76) would not have been out to be significant since in that case the mean of boys would be about 24.48 and of girls 25.15, (combined mean of second-born and middle-born together taking into consideration difference N in each). This would perhaps justify the separate analysis of the second born, which is not included in the middle-born, which thus separately gave more information.

Family Size

(d) Within the Last-Born (The Youngest)

Finally, the data of the last-born in family sizes of F2, F3, F4, F5 and F6 or more (excepting F1 being only or the first and last-born child) were classified sexwise and analysed statistically. The results are summarized in Tables 14 (a), 14 (b) and 14 (c) below.

Group XIV : Last Born (Youngest) Vs. Last Born
Boys (Youngest) Girls

Sex Vs. Family Size

(FA) Table 14 (a) - Showing Mean Scores

Family Size	Boys No.	Boys Mean	Girls No.	Girls Mean	Total No.	Total Mean
F2	32	20.37	31	20.57	63	20.47
F3	27	21.62	21	22.66	48	22.83
F4	25	22.04	24	23.87	49	22.11
F5	42	25.26	31	23.93	73	24.69
F6	32	25.84	31	26.22	63	26.03
Total	158	23.25	138	23.49	296	23.36

(PA) Table 14 (b) - Showing Analysis of Variance for Above Data

Sources	df	S.S.	M.S.	F.Ratio	Remarks
Sex	1	4.00	4.00	0.74	Not Sig.
Family Size	4	1191.35	297.83	5.52	Sig. at .01
S X F	4	84.27	21.06	0.390	Not Sig.
Within	286	15423.25	53.92		
Total	295	16702.87			

contd.....

CFA) Table 14 (c) - Showing Results of L.S.D. Test

Groups	Boys	Girls	Total
F2 - F3	Not Sig.	Not Sig.	Not Sig.
F2 - F4	Not Sig.	Not Sig.	Not Sig.
F2 - F5	Sig. at .01	Sig. at .05	Sig. at .01
F2 - F6	Sig. at .01	Sig. at .01	Sig. at .01
F3 - F4	Not Sig.	Not Sig.	Sig. at .01
F3 - F5	Sig. at .01	Not Sig.	Not Sig.
F3 - F6	Sig. at .01	Sig. at .01	Sig. at .01
F4 - F5	Not Sig.	Not Sig.	Not Sig.
F4 - F6	Sig. at .05	Sig. at .05	Sig. at .01
F5 - F6	Not Sig.	Sig. at .05	Not Sig.

(Sex-wise)

In F2, B - G : Not Significant

In F3, B - G : Not Significant

In F4, B - G : Not Significant

In F5, B - G : Not Significant

In F6, B - G : Not Significant

This analysis revealed again that the sex as usual in most cases is here also not significantly contributing factor on the whole nor at any size of the family; though at most sizes excepting F5 the last-born girls tended to score higher than boys. The interaction was also not significant. This leads to say without doubt that as shown in Table 14 (b), family size was the only and real contributing factor of family adjustment for the last born. However, the most adjusted group was F6, last born which scored unexpectedly consistently higher (26.03) than any other size group; next in order of standing was F5; then were F3 and F4 not differing much; and F2 last born scored the least (20.47). This was contrary to the other earlier findings showing that the greater the size, the less the family adjustment among the children. No doubt, as shown in Table 14 (c), some of the pairs of family sizes in the middle did not significantly differ. (Does it mean that among the last-born, the greater the family size, the more the adjustment?)

It is worthwhile at this stage to compare the results of the first-born group (Table 11) with the results of the last-born group (Table 14) with respect to the family size, in view of the fact that both these groups did not show much significant difference when data were classified not family size-wise, but only oderwise and sexwise, as in Table 8. It is interesting to note that though the first born and the last born did not differ ~~statewise~~ order-wise and sex-wise (Table 8), the comparison of results in Table 11 and

Table 11 shows that in case of the first-born (Table 11) the sex, the family size and interaction - all were significant; that in case of the last-born (Table 14) the family size was the only significant factor. Can it be said that, as the size of the family increases, the birth order begins to lose importance and family-size gains status as far as family adjustment is concerned ? This would have been answered to some extent, if the data would have been classified and analysed somehow with respect to all the three variables, viz. sex, birth order, and family size at the same time, wherever possible. This is suggested for further research in future, with the help of more statistical control and better experimental designs.

An attempt is made in the last section below to summarize the picture revealed from the present analysis.

SUMMARY OF RESULTS:

1. The overall analysis of the data reveals that -
   (a) Boys and girls on the whole did not differ significantly on scores in family adjustment;
   (b) Order of birth of a child was a significantly contributing factor in family adjustment. On the whole, most adjusted of all groups were the second-born; next were first-born and last-born almost equal; somehow the middle-born (i.e. born after the second and before the last, youngest) were the least adjusted

amongst these four categories. All pairs of birth order differed from other, except the first-born and the last-born.

(c) Sex and birth order showed a significant interaction. To speak otherwise, both among boys and girls, first-born and last-born were not different at all. However, among boys, all other pairs were significantly different, and among girls only second-born differed from other groups, and none else. Wherever differed, boys scored higher than girls among first-born and second-born, while girls scored higher than boys among middle-born and last-born. All this accounts for significant interaction between sex and birth order.

(d) Again, the family size was independently of sex the most significant factor in social adjustment. F2 group was the most adjusted, and then beginning with F1 there was a trend of decrease with increase in family adjustment in family size.

2. When data were analysed to compare the findings on children of varied birth order, the study warranted the following inferences :

(a) Comparison between the first-born and other later-born siblings :

(i) Boys did not significantly differ from girls, as confirming the general finding above.

(ii) Strangely, birth order that was found above to be significant did not turn out to be a significant factor in this analysis. This can be explained by significant interaction explained below.

(iii) There was significant interaction between the sex and the birth order, though both by themselves were insignificant in this analysis. From examination of cells, it would be safer to infer that sex might be always insignificant by itself, and birth order which was generally significant became insignificant in this case due to totalling of all later-born differing in opposite direction; however, both sex and birth in interaction showed significance.

(b) Comparison between the only child group and the other first-born group :

(i) There were no significant sex differences.

(ii) Only child did not differ from first-born child.

(iii) There was no significant interaction between these two.

(c) Comparison between only born boys and first-born boys :

The separate analysis of data on only born boys and other first-born boys also showed no significant differences between the two, thus confirming the earlier sub-finding above in 2(b)(ii), though there was a tendency among the only boys to be somewhat more adjusted than other first-born boys.

(d) Comparison between only born girls and first-born girls :

Similarly, the separate analysis of data on only born girls and first-born girls also showed no significant differences between the two; thus confirming the earlier sub-finding above in 2(i).

(e) Comparison between first-born children of mixed sexes and first-born children of same sexes :

Thus, analysis revealed a very interesting finding that first-born children of mixed sex were more adjusted than first-born children of the same sex.

(f) Comparison between the only child group and the later-born (excluding the first-born) :

(i) There were no sex differences.

(ii) There were no birth order differences.

(iii) The interaction between the two was significant at .05 level.

(g) Comparison between the first-born and the last-born (youngest) :

(i) There were no significant sex differences.

(ii) Unexpectedly, there were no significant birth order differences.

(iii) There was no significant interaction between the two. Thus, contrary to expectation, the first-born did not differ from the last-born.

(h) Comparison between the last-born (youngest) and total of the second-born and the middle-born :

(i) No sex differences were observed.

(ii) No birth order differences were significant

(iii) Nor was there significant interaction between the two. Individually, last-born differed from the more adjusted second-born or the less adjusted middle-born as shown earlier, but it did not differ from the aggregate of the two.

(i) Comparison between the last-born and the only-born :

(i) There were no sex differences.

(ii) The only-born were more adjusted than the last-born.

(iii) There was no significant interaction. These findings compared with those in (g) above equate the first-born and the only-born and thus confirm the findings in (b) above.

3. When data were analysed with respect to sex and family size for each ordinal status, the results revealed thus :

(a) Within the First-born :

(i) Boys and girls differed significantly at .05 level, boys scoring higher than girls on family adjustment, except at F2 level.

(ii) Size of the family was found to be a significant contributing factor to the family adjustment. Among the family sizes of 1,2,3,4,5 and 6 or more, children in the family with two children were the most adjusted; next best were children with family size of one or three or four children, not much differing from one another; amongst all groups, the least adjusted were children with family size of 5 or 6 and more, both not much differing. In other words, best number

is two; excepting F2 and including F1, the greater the number, the less the family adjustment among the first-born.

(iii) In most of the family sizes, boys were more adjusted than girls; at F2 girls were more adjusted than boys.

(b) Within the Second-born :

(i) The boys did not differ from the girls.

(ii) Nor was there any significant interaction between sex and family size.

(iii) Only the family size was a significant factor in family adjustment. Again, the greater the family,size, the less the adjustment. Amongst family sizes of 3,4,5,6 and more (excluding size of 2, second-born being the last-born or youngest), most adjusted groups were children in family size of three and four which did not differ much; next best was size of five and least adjusted was size of six and more.

(c) Within the Middle-born :

(i) There were significant sex differences; girls scored higher in family adjustment.

(ii) There were significant family size differences at .05 level. Amongst groups of family sizes of 4, 5 or 6 (excluding 3 being last born),

more adjusted was the group of family size of six, not much differing from size of four; least adjusted was size of five, which differed from both size of four and six.

(iii) There was significant interaction between sex and family size. Boys scored higher in F4 and F6 to some extent, but not significantly; while girls scored significantly higher in F5. This accounts for significant interaction.

(d) Within the Last-born (Youngest)

(i) There were no sex differences.

(ii) Nor was there any significant interaction between sex and family size.

(iii) Only the family size was a significant factor. Amongst the family sizes of 2, 3, 4, 5 and 6 or more, (excluding size of 1 being both first and last born), most adjusted were again unexpectedly children in F6; next best in F5; F3 and F4 were next equal; F2 was least adjusted.

This completes the discussion of findings on family adjustment with respect to contribution of sex, birth order and family size. To summarize, sex is not a significant factor, birth order and family size are significantly contributing factors. Usually, the second-born

are most adjusted; first-born and last-born being equal are next best in adjustment and middle-born stands last in adjustment in comparison to all others. As far as family size is concerned, children in family with size of two children are generally most adjusted; children in family size of one, three and four being almost equal are next best in adjustment, and least adjusted among those compared are children in family size of five, six or more. Number two is the best as propagated by all social workers and Government agencies for family planning. The findings generally confirm that the more the number, the lesser the family adjustment.