CONCLUSIONS AND SUGGESTIONS

The Study in Brief

The purpose of this study was to relate masculinity-femininity trait in adolescents to their adjustment patterns at home, school and community and academic achievement.

To measure the masculinity-femininity trait in adolescents, the Masculinity-Femininity Scale (MF scale) was prepared and standardized on the adolescent population. The scale consisted of 18 sub-traits, namely, empathy, superiority, courage, sociability, athletic interests, literary interests, mechanical mindedness, collecting interests, vocational interests, dress and appearance, persuasibility, sensitive to emotions, social service deeds, values, aesthetic sense, parental identification, past experiences and friendships and eighty-five items, in the form of statements.

Adjustment at home, school and community of adolescents was measured, using the Adjustment Scale of the Kerala University Personality Inventory.
The marks scored by adolescents at the SSLC examination were taken as the index of academic achievement.

In order to collect the personal data required, a questionnaire was prepared and administered.

The sample for the study was made up of boys and girls of Standard X, in the schools of Trivandrum Educational District.

The facilities available at the Computer Centre, University of Kerala, were utilised for the statistical analysis of data.

The important conclusions arrived at are given in the following sections:

(i) Masculinity-Femininity (MF) trait in adolescent boys and girls.

(ii) Adjustment of adolescents, at home, school and community.

(iii) Academic achievement of adolescents

(iv) Relationships between MF and adjustment at home, school and community.

(v) Relationship between MF and academic achievement.

(vi) Relationships between total achievement and adjustment at home, school and community.
(vii) Deviant groups - Masculine girls and feminine boys:

(a) Identification and MF of deviant groups
(b) Adjustment at home, school and community for masculine girls and feminine boys
(c) Academic achievement of deviant groups
(d) Relationship between MF and adjustment
(e) Relationship between MF and achievement
(f) Relationship between adjustment and achievement.

(viii) Partial correlations.

Section (i)

Masculinity-Femininity (MF) trait in adolescent boys and girls

(1) The adolescents of the study are characterized by low masculinity.

(2) Boys possess significantly higher masculinity than girls. The mean value of MF score of boys was significantly higher than that of girls.

(3) Adolescents belonging to high economic status homes possess higher masculinity. The mean values of MF scores were found to be significantly higher than that of the total sample and the average value of MF possible.

(4) Adolescents belonging to medium size families possess higher masculinity. The mean value of MF scores
was significantly higher than the mean values of MF possessed by large and small family groups.

(5) Adolescents who have either sex siblings alive possess higher masculinity, than those who have 'siblings of both sex alive'. The mean values of MF scores were significantly higher.

Empathy

(6) Empathy has been identified as a feminine trait, for the group under study. Girls possess significantly higher em­pathy than boys, confirming earlier findings on the trait. (The C.R. value calculated between boys and girls was significant at .01 level vide Section I).

(7) There is relationship between economic status and empathic ability. Adolescents belonging to low economic status homes possess significantly higher empathic ability. (The value of C.R. calculated between high income group and low income group was significant at .01 level; and between average income group and low income group was significant at .05 level).

(8) There is relationship between sibling relationships and empathic ability. The only child possess highest empathic ability, with adolescents 'having both
brothers and sisters' coming next. (The C.R. value calculated between the groups 'both sex siblings alive' and 'brothers alone alive' was significant at .01 level and between the groups 'only child' and 'brothers alone alive', 'only child' and 'sisters alone alive', 'both sex siblings alive' and 'sisters alone alive' were significant at .05 level).

(9) There is relationship between size of family and empathy. Adolescents belonging to small families possess higher empathic ability, closely followed by adolescents from large families. (The C.R. values calculated between 'large families and medium size families' and 'small families and medium size families' were significant at .01 level.

(10) The pattern of relationship for empathy, for the following groups cannot be identified as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward and Scheduled castes
(3) Backward and Scheduled castes
(4) Backward and forward castes
(5) High income and medium income
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Both parents not alive and mother alone alive
(10) Both parents not alive and father alone alive
(11) Mother alone alive and father alone alive
(12) Both brothers and sisters alive and 'only child'
(13) Brothers alone alive and sisters alone alive
(14) Joint family and nuclear family
(15) Large family and small family.

Superiority

(11) Superiority has been identified as a masculine trait, for the group under study. Boys possess significantly higher superiority than girls. (The C.R. value calculated between boys and girls was significant at .01 level).

(12) There is relationship between economic status and superiority. Adolescents belonging to higher economic status homes possess higher superiority. (The C.R. values calculated between the means of groups, high income and average income were significant at .01 level).

(13) The pattern of relationship for superiority for the following groups cannot be identified as the C.R. values between the groups were insignificant.

(10) Early and late adolescents
(2) Forward castes and scheduled castes
(3) Backward castes and scheduled castes
(4) Backward castes and forward castes
(5) Medium income group and low income group
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Mother alone alive and father alone alive
(10) Both parents not alive and mother alone alive
(11) Both parents not alive and father alone alive
(12) Only child and both brothers and sisters alive
(13) Only child and sisters alone alive
(14) Only child and brothers alone alive
(15) Sisters alone alive and brothers alone alive
(16) Joint family and nuclear family
(17) Large family and average size family
(18) Large family and small family
(19) Average size family and small family.

Courage

(14) Courage has been identified as a masculine trait for the group under study. Boys are found to be more courageous than girls, confirming earlier findings on the trait. (The C.R. value calculated between boys and girls was significant at .01 level).

(15) There is relationship between economic status and courage. Adolescents belonging to the higher economic status homes are more courageous, than the other groups. (The C.R. values of the mean scores between the
groups 'high income and low income' and 'high income and average income' were significant at .01 level).

(16) There is relationship between type of family and courage. Adolescents belonging to nuclear families are found to be more courageous than those from joint families. (The C.R. value of the mean scores between the groups was significant at .05 level).

(17) There is relationship between size of family and courage. Adolescents hailing from medium size families are more courageous than those from large families. (The C.R. value of the mean scores between 'large family and average family' was significant at .01 level).

(18) The pattern of relationship for courage, for the following groups cannot be identified as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward castes and Backward castes
(3) Backward castes and scheduled castes
(4) forward castes and scheduled castes
(5) Medium income and low income
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Mother alone alive and father alone alive
(10) Both parents not alive and mother alone alive
(11) Both parents not alive and father alone alive
(12) Only child and both brothers and sisters alive
(13) Only child and brothers alone alive
(14) Only child and sisters alone alive
(15) Brothers alone alive and sisters alone alive
(16) Large family and small family
(17) Average family and small family

**Sociability**

(19) Sociability has been identified as a masculine trait, for the group under study. Boys are found to be more sociable than girls. (The C.R. value calculated between the means for boys and girls was significant at .01 level.

(20) There is relationship between economic status and sociability. Adolescents belonging to high economic status homes possess higher sociability. (The C.R. values of the mean scores between the group 'high income and low income' and 'high income and medium income' were significant at .01 level).

(21) The pattern of relationship for sociability, for the following groups cannot be identified, as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward and Scheduled castes
(3) Forward and backward castes
(4) Scheduled castes and backward castes
(5) Medium income and low income
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Mother alone alive and father alone alive
(10) Both parents not alive and father alone alive
(11) Both parents not alive and mother alone alive
(12) Brothers alone alive and sisters alone alive
(13) Only child and both brothers and sisters alive
(14) Only child and brothers alone alive
(15) Only child and sisters alone alive
(16) Joint family and nuclear family
(17) Large family and average size family
(18) Large family and small family
(19) Average size family and small family

Athletic interests

(22) Athletic interests cannot be identified as a masculine trait for the sample studied. The athletic interests of boys and girls are similar. (The C.R. value calculated between the difference in means of 'boys and girls' was not significant).

(23) There is relationship between economic status and athletic interests. Adolescents belonging to high economic status homes possess higher interest in athletics. (The C.R. value of the mean scores between 'high income and low income' was significant at .01 level, and between 'medium income and low income' was significant at .05 level).
(24) There is relationship between type of family and athletic interests. Adolescents hailing from joint families, possess higher interest in athletics. (The C.R. value of the mean scores between joint families and nuclear families was significant at .01 level).

(25) The pattern of relationship for athletic interests, for the following groups cannot be identified as the C.R. values were found to be insignificant.

(1) Boys and girls
(2) Early and late adolescents
(3) Forward castes and Scheduled castes
(4) Forward castes and backward castes
(5) Scheduled castes and backward castes
(6) High income and medium income
(7) Both parents alive and both parents not alive
(8) Both parents alive and mother alone alive
(9) Both parents alive and father alone alive
(10) Mother alone alive and father alone alive
(11) Both parents not alive and father alone alive
(12) Both parents not alive and mother alone alive
(13) Only child and both brothers and sisters alive
(14) Only child and brothers alone alive
(15) Only child and sisters alone alive
(16) Brothers alone alive and sisters alone alive
(17) Large family and small family
(18) Large family and average size family
(19) Small family and average size family.
Literary interests

(26) Interest in masculine literature has been identified as a masculine trait, for the sample studied. Boys possess higher interest in masculine literature than girls. (The C.R. value of the mean scores between boys and girls was significant at .01 level).

(27) There is relationship between economic status and interest in masculine literature. Adolescents belonging to high economic status homes possess higher interest in masculine literature. (The C.R. values of the mean scores between the groups 'high income and medium income' and 'high income and low income' were significant at .01 level).

(28) There is relationship between presence as well as absence of one sex or both sex parents and interest in masculine literature. Adolescents who have 'both father and mother alive' show higher interest in masculine literature closely followed by adolescents who have 'one sex parent alive. (The C.R. value of the mean scores between the groups 'both parents alive' and 'both parents not alive' was significant at .01 level. The C.R. values calculated between the groups 'both parents not alive' and 'mother alone alive' and 'both parents not alive and father alone alive were significant at .05 level).
(29) There is relationship between size of family and interest in masculine literature. Adolescents belonging to the medium size families show higher interest in masculine literature. (The C.R. value calculated between the groups 'large family and average size family was significant at .05 level).

(30) The pattern of relationship for the following groups cannot be identified as the C.R. values between the groups were found to be insignificant.

(1) Early and late adolescents
(2) Forward and backward castes
(3) Forward and scheduled castes
(4) Scheduled castes and backward castes
(5) Medium income group and low income group
(6) Both parents alive and mother alone alive
(7) Both parents alive and father alone alive
(8) Mother alone alive and father alone alive
(9) Only child and both brothers and sisters alive
(10) Only child and sisters alone alive
(11) Only child and brothers alone alive
(12) Sisters alone alive and brothers alone alive
(13) Joint family and nuclear family
(14) Large family and small family
(15) Average size family and small family.

**Mechanical mindedness**

(31) Mechanical mindedness has been identified as a masculine trait for the sample studied. Boys score
higher in mechanical mindedness than girls. (The C.R. value calculated between the groups was significant at .01 level).

(32) There is relationship between age and mechanical mindedness. Adolescents belonging to the older age group possess significantly higher mechanical mindedness than the younger group. (The C.R. value calculated between the groups was significant at .01 level).

(33) There is relationship between religion and mechanical mindedness. Adolescents belonging to the backward castes possess higher mechanical mindedness. (The C.R. value calculated between the groups 'backward castes and scheduled castes' was significant at .05 level).

(34) The pattern of relationship for the following groups cannot be identified as the C.R. values were found to be insignificant.

(1) Forward castes and scheduled castes
(2) Forward castes and backward castes
(3) High income and low income
(4) High income and average income
(5) Low income and average income
(6) Both parents alive and both parents not alive
Collecting interests

(35) Interest in collecting has been identified as a feminine trait for the sample studied. Interest in collecting is found to be higher in girls. (The C.R. value calculated between 'boys and groups was significant at .01 level).

(36) There is relationship between economic status and collecting interests. Adolescents belonging to the low and average economic status families show higher interest in collecting. (The C.R. values calculated between 'high and low income groups' and 'high and average income groups were significant at .05 level).
(37) There is relationship between absence of parents and interest in collecting. Adolescents who have "both parents not alive" possess higher interest in collecting. (The C.R. values calculated between the groups "both parents alive and both parents not alive" and "mother alone alive and both parents not alive" were significant at .05 level).

(38) There is relationship between sibling relationships and interest in collecting. The "only child" possesses higher interest in collecting. (The C.R. value calculated between the groups "only child" and "brothers alone alive" was significant at .05 level).

(39) The pattern of relationship for collecting interests for the following groups cannot be identified as the C.R. values calculated were found to be insignificant.

(1) Early adolescents and late adolescents
(2) Forward castes and scheduled castes
(3) Forward castes and backward castes
(4) Scheduled castes and backward castes
(5) Average income and low income
(6) Both parents alive and mother alone alive
(7) Both parents alive and father alone alive
(8) Mother alone alive and father alone alive
(9) Both parents not alive and father alone alive
(10) Only child and both brothers and sisters alive
(11) Only child and sisters alone alive
(12) Brothers alone alive and sisters alone alive
(13) Joint family and nuclear family
(14) Large family and small family
(15) Large family and average size family
(16) Small family and average size family.

**Vocational interests**

(40) Interest in masculine vocations has been identified as a masculine trait for the sample studied. Boys are highly interested in masculine jobs, confirming earlier findings. (The C.R. value calculated between boys and girls was significant at .01 level).

(41) There is relationship between economic status and vocational interests of adolescents. Adolescents belonging to higher economic status homes prefer masculine jobs. (The C.R. values calculated between the groups 'high income and low income' and high income and average income' were significant at .01 level).

(42) There is relationship between religion and vocational interests of adolescents. Adolescents belonging to forward and backward castes show higher interest in masculine jobs (The C.R. values calculated between the groups 'forward castes and scheduled castes' and 'backward castes and scheduled castes' were significant at .05 level).
(43) There is relationship between presence of both sex parents and interest in masculine vocations. Adolescents who have 'both father and mother alive' show higher interest in masculine jobs. (The C.R. value calculated between the groups 'both father and mother alive and mother alone alive' was significant at .01 level).

(44) The pattern of relationship for vocational interests, for the following groups cannot be identified, as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward castes and backward castes
(3) Average income and low income
(4) Both parents alive and both parents not alive
(5) Both parents alive and father alone alive
(6) Mother alone alive and father alone alive
(7) Both parents not alive and father alone alive
(8) Both parents not alive and mother alone alive
(9) Only child and both brothers and sisters alive
(10) Only child and brothers alone alive
(11) Only child and sisters alone alive
(12) Brothers alone alive and sisters alone alive
(13) Joint family and nuclear family
(14) Large family and small family
(15) Large family and Average size family
(16) Small family and average size family.

**Dress and appearance**

(45) Interest in masculine dresses and appearance
has been identified as a masculine trait, for the sample studied, conforming earlier findings on the trait. Boys show higher interest in masculine dresses and appearances. (The C.R. value calculated between 'boys and girls' was significant at .01 level).

(46) There is relationship between economic status of family and interest in masculine dresses and appearances. Adolescents belonging to high economic status homes prefer masculine dresses and appearances. (The C.R. values calculated between the groups 'high income and low income' and 'high income and average income' were significant at .01 level).

(47) There is relationship between religion and interest in masculine dresses and appearances. Adolescents belonging to forward and backward castes prefer masculine dresses and appearances. (The C.R. values calculated between the groups 'forward castes and scheduled castes' and 'backward castes and scheduled castes' were significant at .05 level).

(48) The pattern of relationship for 'dress and appearance' for the following groups cannot be identified, as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward castes and backward castes
(3) Average income group and low income group
(4) Both parents alive and both parents not alive
(5) Both parents alive and mother alone alive
(6) Both parents alive and father alone alive
(7) Mother alone alive and father alone alive
(8) Mother alone alive and both parents not alive
(9) Father alone alive and both parents not alive
(10) Only child and both brothers and sisters alive
(11) Only child and brothers alone alive
(12) Only child and sisters alone alive
(13) Brothers alone alive and sisters alone alive
(14) Joint family and nuclear family
(15) Large family and small family
(16) Large family and average size family
(17) Small family and average size family.

Persuasibility

(49) Persuasibility has been identified as a feminine trait, for the sample studied. Girls possess significantly higher persuasibility, conforming earlier findings on the trait. (The C.R. value calculated between 'boys and girls' was significant at .01 level).

(50) There is relationship between economic status of family and persuasibility. Adolescents belonging to the low and average income groups possess higher persuasibility. (The C.R. value calculated between 'high income and low income group' was significant at .01 level, and between 'high income and average income' was significant at .05 level).
(51) The pattern of relationship for persuasibility, for the following groups cannot be identified as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward castes and scheduled castes
(3) Forward castes and backward castes
(4) Scheduled castes and backward castes
(5) Average income and low income.
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Mother alone alive and father alone alive
(10) Both parents not alive and father alone alive
(11) Both parents not alive and mother alone alive
(12) Only child and both brothers and sisters alive
(13) Only child and sisters alone alive
(14) Only child and brothers alone alive
(15) Sisters alone alive and brothers alone alive
(16) Joint family and nuclear family
(17) Large family and small family
(18) Large family and average size family
(19) Small family and average size family.

Sensitive to emotions

(52) Sensitive to emotions has been identified as feminine trait, for the sample studied. Girls possess higher sensitivity to emotions than boys. (The C.R. value calculated between the groups was significant at .01 level).
(53) There is relationship between presence of both father and mother and sensitivity to emotions. Adolescents who have 'both father and mother alive' possess higher sensitivity to emotions. (The C.R. value calculated between the groups 'both father and mother alive and mother alone alive' was significant at .05 level).

(54) The pattern of relationship for 'sensitive to emotions', for the following groups cannot be identified as the C.R. values were found to be insignificant.

(1) Early and late adolescents
(2) Forward castes and scheduled castes
(3) Forward castes and backward castes
(4) Scheduled castes and backward castes
(5) High income group and low income group
(6) High income group and average income group
(7) Low income group and average income group
(8) Both parents alive and both parents not alive
(9) Both parents alive and father alone alive
(10) Mother alone alive and father alone alive
(11) Both parents not alive and mother alone alive
(12) Both parents not alive and father alone alive
(13) Only child and both brothers and sisters alive
(14) Only child and sisters alone alive
(15) Only child and brothers alone alive
(16) Sisters alone alive and brothers alone alive
Joint family and nuclear family
Large family and average size family
Large family and small family
Average size family and small family.

Social service deeds

(55) Interest in social service activities has been identified as feminine trait, for the sample studied. Girls show higher interest in social service activities. (The C.R. value calculated between 'boys and girls' was significant at .01 level).

(56) There is relationship between economic status of adolescents' family and social service activities. Adolescents belonging to low economic status homes show higher interest in social service activities. (The C.R. values calculated between the groups 'high income and low income' and 'average income and low income' were significant at .01 level).

(57) There is relationship between sex of the parent and adolescents' interest in social service deeds. Adolescents who have 'mother alone alive' show higher interest in social service activities. (The C.R. values calculated between the means of groups 'mother alone alive and both parents alive' and 'mother alone alive
and father alone alive' were significant at .05 level).

(58) There is relationship between sibling relationships and social service deeds. The 'only child' shows higher interest in social service deeds. (The C.R. values calculated between the groups 'only child and both sex siblings alive', 'only child and brothers alone alive' and 'only child and sisters alone alive' were significant at .01 level).

(59) There is relationship between size of family and social service deeds. Adolescents belonging to small and average size families show higher interest in social service activities; than those from larger families. (The C.R. values calculated between the groups 'large family and average size family' and 'average size family and small family' were significant at .01 level; and between large family and small family was significant at .05 level).

(60) The pattern of relationship, for social service deeds for the following groups cannot be identified as the C.R. values were insignificant.

(1) Early and late adolescents
(2) Forward castes and backward castes
(3) Forward castes and scheduled castes
(4) Backward castes and scheduled castes
Values

(61) Values of adolescents cannot be identified as masculine or as feminine. Boys and girls are seen to possess masculine values. (The C.R. values calculated between the mean values of boys and girls was not significant).

(62) There is relationship between age and values of adolescents. Older adolescents are seen to possess masculine values. (The C.R. value calculated between the groups 'younger adolescents and older adolescents' was significant at .01 level).

(63) There is relationship between economic status of family and values of adolescents. Adolescents belonging to the lower economic strata are seen to possess higher masculine values. (The C.R. value calculated between the groups 'high income and low income' was significant at .01 level; and between 'high income and average income' was significant at .05 level).
(64) There is relationship between parental relationships and masculine values. Adolescents who have 'mother alone alive' are seen to possess higher masculine values, than those who have 'both father and mother not alive'. (The C.R. value calculated between the groups was significant at .01 level).

(65) There is relationship between sibling relationships and masculine values. Adolescents who have 'brothers alone alive' are seen to possess more masculine values. (The C.R. value calculated between the groups 'brothers alone alive' and 'sisters alone alive' was significant at .05 level).

(66) The pattern of relationship, for values, for the following groups cannot be identified, as the C.R. values were found to be insignificant.

(1) Boys and girls
(2) Forward castes and backward castes
(3) Forward castes and scheduled castes
(4) Backward castes and scheduled castes
(5) Average income and low income
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Mother alone alive and father alone alive
(10) Both parents not alive and father alone alive
(11) Only child and both brothers and sisters alive
(12) Only child and brothers alone alive
(13) Only child and sisters alone alive
(14) Joint family and nuclear family
(15) Large family and average size family
(16) Large family and small family
(17) Average size family and small family

Aesthetic Sense

(67) Aesthetic sense has been identified as a feminine trait, for the sample studied. Girls are seen to possess higher aesthetic sense than boys, conforming earlier findings on the trait. (The C.R. value calculated between the groups was significant at .01 level).

(68) There is relationship between economic status of family and aesthetic sense of adolescents. Adolescents belonging to lower economic status homes are seen to possess higher aesthetic sense. (The C.R. values calculated between the groups 'high income and low income' and 'average income and low income' were significant at .01 level).

(69) There is relationship between sibling relationships and aesthetic sense of adolescents. The 'only child' is seen to be possessing higher aesthetic sense. (The C.R. values calculated between the groups
'only child and both brothers and sisters alive', and 'only child and brothers alone alive' were significant at .01 level; and between 'only child and sisters alone alive' was significant at .05 level).

(70) The pattern of relationship for aesthetic sense, for the following groups cannot be identified, as the C.R. values calculated were found to be insignificant.

(1) Early and late adolescents
(2) Forward castes and scheduled castes
(3) Forward castes and backward castes
(4) Scheduled castes and backward castes
(5) High income and average income
(6) Both parents alive and both parents not alive
(7) Both parents alive and mother alone alive
(8) Both parents alive and father alone alive
(9) Mother alone alive and father alone alive
(10) Both parents not alive and father alone alive
(11) Both parents not alive and mother alone alive
(12) Brothers alone alive and sisters alone alive
(13) Joint family and nuclear family
(14) Large family and small family
(15) Large family and average size family
(16) Small family and average size family

Past experiences

(71) Past experiences have been identified as a
feminine trait for the sample studied. Girls are found to be remembering past experiences of childhood, than boys, conforming earlier findings on the trait.

(72) The pattern of relationship for past experiences for the sub-samples classified on the basis of age, religion, economic status and demographic variables, cannot be identified, as the C.R. values calculated between respective groups were found to be insignificant.

Parental identification

(73) Identification with the male-sex parent is seen to be related to the sex of the adolescent. Girls are seen to identify with the male-sex-parent. (The C.R. value calculated between 'boys and girls' was significant at .01 level).

(74) There is relationship between economic status of adolescents' family and parental identification. Adolescents belonging to the low and average economic status homes are found to identify with the male-sex-parent. (The C.R. values calculated between the groups 'high income and low income' and 'high income and
average income' were significant at .01 level).

(75) The pattern of relationship for parental identification for the sub-samples classified on the basis of age, religion and demographic variables, cannot be identified, as the C.R. values calculated between respective groups were found to be insignificant.

Friendships

(76) The pattern of relationship for friendships, for the sub-samples classified on the basis of age, sex, religion, economic status and demographic variables, cannot be identified, as the C.R. values calculated between respective groups were found to be insignificant.

Intercorrelation of MF and 18 sub-trait traits for the total Sample

(77) Empathy

Empathy is positively and significantly correlated with 3 masculine traits (courage, literary interests and vocational interests) total MF, 5 feminine traits (collecting interests, persuasibility, social service deeds, aesthetic sense and past experiences);
and negatively and significantly correlated with 3 masculine traits (athletic interests, mechanical mindedness and parental identification).

(78) **Superiority**

Superiority is positively and significantly correlated with six masculine traits (courage, sociability, literary interests, mechanical mindedness, vocational interests, dress and appearance) total MF, three feminine traits (persuasibility, collecting interests and sensitive to emotions); and negatively and significantly correlated with two masculine traits (values and parental identification) and two feminine traits (aesthetic sense and friendships).

(79) **Courage**

Courage is positively and significantly correlated with 6 masculine traits (superiority, sociability, literary interests, mechanical mindedness, vocational interests, dress and appearance) total MF, four feminine traits (empathy, collecting interests, persuasibility and sensitive to emotions); and negatively and significantly correlated with 2 masculine traits (values and parental identification).
(80) **Sociability**

Sociability is positively and significantly correlated with six masculine traits (superiority, courage, literary interests, mechanical mindedness, vocational interests, dress and appearance) total MF, 3 feminine traits (collecting interests, persuasibility and sensitive to emotions); and negatively and significantly correlated with 2 masculine traits (values and parental identification) and 2 feminine traits (aesthetic sense and friendships).

(81) **Athletic interests**

'Athletic interests' is positively and significantly correlated with one masculine trait (mechanical mindedness), total MF and one feminine trait (sensitive to emotions); and negatively and significantly correlated with three feminine traits (empathy, collecting interests and aesthetic sense).

(82) **Literary interests**

'Literary interests' is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, mechanical mindedness, vocational interests and dress and appearance), total MF and 6 feminine traits (empathy, collecting interests, persuasibility, sensitive to emotions, social service deeds
and aesthetic sense); and negatively and significantly correlated with 2 masculine traits (values and parental identification).

(83) Mechanical mindedness

Mechanical mindedness is positively and significantly correlated with 7 masculine traits (superiority, courage, sociability, athletic interests, literary interests, vocational interests and dress and appearance) total MF and two feminine traits (persuasibility and sensitive to emotions); and negatively and significantly correlated with one masculine trait (parental identification) and three feminine traits (empathy, social service deeds and past experiences).

(84) Collecting interests

'Collecting interests' is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, literary interests, vocational interests and dress and appearance), total MF and 5 feminine traits (empathy, persuasibility, social service deeds; aesthetic sense and past experiences); and negatively and significantly correlated with two masculine traits (athletic interests and parental identification).
(85) Vocational interests

'Vocational interests' is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, literary interests, mechanical mindedness and dress and appearance), total MF and five feminine traits (empathy, collecting interests, persuasibility, social service deeds and past experiences); and negatively and significantly correlated with 2 masculine traits (values and parental identification).

(86) Dress and appearance

'Dress and appearance' is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, mechanical mindedness, literary interests and vocational interests), total MF, 3 feminine traits (collecting interests, sensitive to emotions and aesthetic sense); and negatively and significantly correlated with one masculine trait (parental identification).

(87) Persuasibility

Persuasibility is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, literary interests, mechanical min-
dedness and vocational interests), total MF, four feminine traits (empathy, collecting interests, social service deeds and past experiences); and negatively and significantly correlated with one masculine trait (parental identification) and one feminine trait (aesthetic sense).

(88) Sensitive to emotions

'Sensitive to emotions' is positively and significantly correlated with 7 masculine traits (superiority, courage, sociability, athletic interests, literary interests, mechanical mindedness and dress and appearance), total MF and negatively and significantly correlated with one masculine trait (parental identification).

(89) Social service deeds

'Social service deeds' is positively and significantly correlated with two masculine traits (literary interests and vocational interests), total MF, four feminine traits (empathy, collecting interests, persuasibility and past experiences); and negatively and significantly correlated with 2 masculine traits (mechanical mindedness and parental identification).
(90) **Values**

'Values' is positively and significantly correlated with one masculine trait (parental identification), two feminine traits (aesthetic sense and friendships); and negatively and significantly correlated with 5 masculine traits (superiority, courage, sociability, literary interests and vocational interests).

(91) **Aesthetic sense**

'Aesthetic sense' is positively and significantly correlated with 3 masculine traits (literary interests, dress and appearance and values), total MF, 4 feminine traits (collecting interests, friendships, past experiences and empathy); and negatively and significantly correlated with 3 masculine traits (sociability, superiority and athletic interests) and one feminine trait (persuasibility).

(92) **Past experiences**

'Past experiences' is positively and significantly correlated with one masculine trait (vocational interests), total MF, 5 feminine traits (empathy, collecting interests, persuasibility, social service deeds and aesthetic sense); and negatively and significantly correlated with one masculine trait (mechanical mindedness).
(93) **Parental identification**

Parental identification is positively and significantly correlated with one masculine trait (values), one feminine trait (friendships); and negatively and significantly correlated with 7 masculine traits (superiority, courage, sociability, mechanical mindedness, literary interests, vocational interests and dress and interests), total MF and 5 feminine traits (empathy, collecting interests, persuasibility, sensitive to emotions and social service deeds).

(94) **Friendships**

'Friendships' is positively and significantly correlated with 2 masculine traits (values and parental identification), one feminine trait (aesthetic sense), and negatively and significantly correlated with two masculine traits (superiority and sociability).

(95) **Total MF**

Total MF is positively and significantly correlated with 8 masculine traits (superiority, courage, sociability, athletic interests, literary interests, mechanical mindedness, vocational interests and dress and appearance), 7 feminine traits (empathy, collecting
interests, persuasibility, sensitive to emotions, social service deeds, aesthetic sense and past experiences); and negatively and significantly correlated with one masculine trait (parental identification).

**Intercorrelation of MF and 18 sub-traits for 'boys'**

(96) **Empathy**

Empathy is positively and significantly correlated with 3 masculine traits (literary interests, vocational interests and values), total MF, 4 feminine traits (collecting interests, persuasibility, social service deeds and past experiences); and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(97) **Superiority**

Superiority is positively and significantly correlated with 5 masculine traits (courage, sociability, literary interests, vocational interests and dress and appearance), total MF, one feminine trait (persuasibility) and negatively and significantly correlated with one masculine trait (values), and one feminine trait (friendships).
(98) **Courage**

Courage is positively and significantly correlated with 5 masculine traits (superiority, sociability, literary interests, vocational interests, and dress and appearance), total MF, one feminine trait (persuasibility), and negatively and significantly correlated with one masculine trait (values) and one feminine trait (past experiences).

(99) **Sociability**

Sociability is positively and significantly correlated with 5 masculine traits (superiority, courage, literary interests, vocational interests and dress and appearance), total MF, 2 feminine traits (persuasibility and sensitive to emotions); and negatively and significantly correlated with one masculine trait (values), and two feminine traits (aesthetic sense and past experiences).

(100) **Athletic interests**

'Athletic interests' is positively and significantly correlated with one masculine trait (mechanical mindedness), total MF and negatively and significantly correlated with one feminine trait (aesthetic sense).

(101) **Literary interests**

'Literary interests' is positively and signifi-
cantly correlated with 5 masculine traits (superiority, courage, sociability, vocational interests and dress and appearance), total MF, two feminine traits (empathy, collecting interests); and negatively and significantly correlated with one masculine trait (values).

(102) Mechanical mindedness

Mechanical mindedness is positively and significantly correlated with one masculine trait (athletic interests), total MF, and negatively and significantly correlated with 5 feminine traits (empathy, collecting interests, social service deeds, aesthetic sense and past experiences).

(103) Collecting interests

Collecting interests is positively and significantly correlated with 3 masculine traits (literary interests, vocational interests and values), total MF, 5 feminine traits (empathy, persuasibility, social service deeds, aesthetic sense and past experiences); and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(104) Vocational interests

Vocational interests is positively and signifi-
cantly correlated with 4 masculine traits (superiority, courage, sociability and literary interests), total MF and 5 feminine traits (empathy, collecting interests, persuasibility, social service deeds and past experiences).

(105) **Dress and appearance**

'Dress and appearance' is positively and significantly correlated with 4 masculine traits (superiority, courage, sociability and literary interests), total MF, and one feminine trait (aesthetic sense).

(106) **Persuasibility**

Persuasibility is positively and significantly correlated with 4 masculine traits (superiority, courage, sociability and vocational interests), total MF, two feminine traits (empathy and collecting interests); and negatively and significantly correlated with one feminine trait (aesthetic sense).

(107) **Sensitive to emotions**

Sensitive to emotions is positively and significantly correlated with one masculine trait (sociability) and total MF.

(108) **Social service deeds**

Social service deeds is positively and signifi-
cantly correlated with one masculine trait (vocational interests), total MF, 3 feminine traits (empathy, collecting interests and past experiences); and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(109) **Values**

'Values' is positively and significantly correlated with 3 feminine traits (empathy, collecting interests and aesthetic sense); and negatively and significantly correlated with 4 masculine traits (superiority, courage, sociability and literary interests).

(110) **Aesthetic sense**

'Aesthetic sense' is positively and significantly correlated with 2 masculine traits (values and dress and appearance), total MF, 2 feminine traits (collecting interests and past experiences); and negatively and significantly correlated with 3 masculine traits (sociability, athletic interests and mechanical mindedness) and one feminine trait (persuasibility).

(111) **Past experiences**

'Past experiences' is positively and significantly correlated with one masculine trait (vocational interests), total MF, 4 feminine traits (empathy, collecting interests, social service deeds and aesthetic
sense); and negatively and significantly correlated with 3 masculine traits (courage, sociability, mechanical mindedness).

(112) Parental Identification

'Parental identification' is not significantly correlated with either masculine or feminine traits.

(113) Friendships

Friendships is negatively and significantly correlated with one masculine trait (superiority).

(114) Total MF

Total MF is positively and significantly correlated with 8 masculine traits (superiority, courage, sociability, athletic interests, literary interests, mechanical mindedness, vocational interests and dress and appearance) and 7 feminine traits (empathy, collecting interests, persuasibility, sensitive to emotions, social service deeds, aesthetic sense and past experiences).

Intercorrelation of MF and 18 sub-traits for girls

(115) Empathy

Empathy is positively and significantly correlated with 3 masculine traits (courage, literary in-
terests and vocational interests), total MF, 3 feminine traits (collecting interests, social service deeds and aesthetic sense); and negatively and significantly correlated with 3 masculine traits (athletics interests, mechanical mindedness and parental identification).

(116) **Superiority**

Superiority is positively and significantly correlated with 4 masculine traits (courage, sociability, vocational interests and dress and appearance), total MF, 4 feminine traits (collecting interests, persuasibility, past experiences and sensitive to emotions), and negatively and significantly correlated with 2 masculine traits (values and parental identification), and one feminine trait (aesthetic sense).

(117) **Courage**

Courage is positively and significantly correlated with 5 masculine traits (superiority, sociability, literary interests, vocational interests and dress and appearance), total MF, 4 feminine traits (empathy, collecting interests, persuasibility and sensitive to emotions); and negatively and significantly correlated with 2 masculine values (values and parental identification) and one feminine trait (aesthetic sense).
Sociability is positively and significantly correlated with 5 masculine traits (superiority, courage, literary interests, vocational interests and dress and appearance), total MF, 4 feminine traits (collecting interests, persuasibility, sensitive to emotions and past experiences); and negatively and significantly correlated with 2 masculine traits (values and parental identification), and two feminine traits (aesthetic sense and friendships).

Athletic interests is positively and significantly correlated with one masculine trait (mechanical mindedness); and negatively and significantly correlated with 3 feminine traits (empathy, collecting interests and aesthetic sense).

'Literary interests' is positively and significantly correlated with 4 masculine traits (courage, sociability, vocational interests and dress and appearance), total MF, 3 feminine traits (empathy, collecting interests, and sensitive to emotions); and negatively and significantly correlated with one masculine trait (mechanical mindedness).
(121) **Mechanical mindedness**

'Mechanical mindedness is positively and significantly correlated with 2 masculine traits (athletic interests and parental identification) and negatively and significantly correlated with one masculine trait (literary interests) and three feminine traits (empathy, social service deeds and past experiences).

(122) **Collecting interests**

'Collecting interests' is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, literary interests, vocational interests and dress and appearance), total MF, three feminine traits (empathy, social service deeds and past experiences); and negatively and significantly correlated with one masculine trait (athletic interests).

(123) **Vocational interests**

'Vocational interests' is positively and significantly correlated with 5 masculine traits (superiority, courage, sociability, literary interests, and dress and appearance), total MF, 4 feminine traits
(empathy, collecting interests, social service deeds, and past experiences); and negatively and significantly correlated with 2 masculine traits (values and parental identification), and one feminine trait (athletic sense).

(124) **Dress and appearance**

'Dress and appearance' is positively and significantly correlated with 5 masculine traits (superiority, courage, sociability, literary interests and vocational interests and sensitive to emotions); and negatively and significantly correlated with 2 masculine traits (values and parental identification).

(125) **Persuasibility**

Persuasibility is positively and significantly correlated with 3 masculine traits (superiority, courage and sociability) and total MF,

(126) **Sensitive to emotions**

'Sensitive to emotions' is positively and significantly correlated with 5 masculine traits (superiority, courage, sociability, literary interests, and dress and appearance), total MF; and negatively and significantly correlated with 2 masculine traits (values and parental identification).
(127) Social service deeds

'Social service deeds' is positively and significantly correlated with one masculine trait (vocational interests), total MF, 2 feminine traits (empathy and collecting interests); and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(128) Values

'Values' is positively and significantly correlated with one masculine trait (parental identification), one feminine trait (friendships) and negatively and significantly correlated with 5 masculine traits (superiority, courage, sociability, vocational interests and dress and appearance), total MF, and one feminine trait (sensitive to emotions).

(129) Aesthetic sense

Aesthetic sense is positively and significantly correlated with 2 feminine traits (empathy and friendships); and negatively and significantly correlated with 5 masculine traits (superiority, courage, sociability, athletic interests and vocational interests).

(130) Past experiences

'Past experiences' is positively and significantly correlated with 3 masculine traits (superiority,
sociability and vocational interests), total MF, one feminine trait (collecting interests); and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(131) Parental identification

Parental identification is positively and significantly correlated with 2 masculine traits (mechanical mindedness and values), one feminine trait (friendships); and negatively and significantly correlated with 5 masculine traits (superiority, courage, sociability, vocational interests and dress and appearance), total MF, and 2 feminine traits (empathy and sensitive to emotions).

(132) Friendships

'Friendships' is positively and significantly correlated with 2 masculine traits (values and parental identification), one feminine trait (aesthetic sense); and negatively and significantly correlated with one masculine trait (sociability).

(133) Total MF

Total MF is positively and significantly correlated with 6 masculine traits (superiority, courage, sociability, literary interests, vocational interests
and dress and appearance), 6 feminine traits (empathy, collecting interests, persuasibility, sensitive to emotions, social service deeds, and past experiences), and negatively and significantly correlated with 2 masculine traits (values and parental identification).

SECTION II

ADJUSTMENT OF ADOLESCENTS AT HOME, SCHOOL AND COMMUNITY

(a) Adjustment at home

(134) Adolescents' adjustment at home is high. The mean values of adjustment scores at home was found to be high.

(135) Adjustment of boys was higher than that of girls. The mean difference was significant at .05 level.

(136) Adjustment of adolescents who are below the age of 16+ is higher than that of their older counterparts. The difference in means were significant at .01 level.

(137) Adjustment of adolescents belonging to high economic status homes is high. The difference in means between the groups 'high income and average income' and 'high income and low income' were significant at .01 level.
Adjustment of adolescents who have 'brothers alone alive' is higher than the adjustment of adolescents, who have 'both sex siblings alive'. The difference in means was significant at .05 level.

Adjustment at home of adolescents is not influenced by factors such as religion and certain demographic variables.

(b) Adjustment at school

Adolescents' adjustment at school is high. The mean values of adjustment scores were found to be high.

Adjustment of adolescents who are below the age of 16+ is higher than that of their older counterparts. The difference in means of adjustment scores was significant at .01 level.

Adjustment at school of adolescents is not influenced by factors such as sex, religion, economic status of parents and demographic variables.

(c) Adjustment with the Community

Adolescents' adjustment with the community is high. The mean values of adjustment scores were higher than the average values possible.
(144) Adjustment with the community of boys is higher than that of girls. The mean difference between the sexes was significant at .01 level.

(145) Adolescents' adjustment with the community is not influenced by factors such as age, religion, economic status of family and demographic variables.

SECTION III

ACADEMIC ACHIEVEMENT OF ADOLESCENTS

(146) The achievement of the total sample is lower than the minimum marks required for pass in the examination, indicating very low achievement.

(147) Achievement of boys is higher than that of girls. The mean difference was significant at .01 level.

(148) Adolescents who are below the age of 16+ achieve higher than the older group. The mean difference was significant at .01 level.

(149) Achievement of adolescents belonging to high economic status homes is significantly higher than the other groups of lower and average economic status.
(150) Achievement of adolescents is higher, when both parents are alive. The difference in means between 'both parents alive and mother alone alive' was significant at .01 level.

(151) Achievement of adolescents is higher when siblings of either sex are alive. The difference in means between various groups of sibling relationships were significant at .01 and .05 levels.

(152) Achievement of adolescents is higher, as they belong to medium size families. The difference in means between various groups were significant at .01 level.

(153) Achievement of adolescents is not influenced by religion, absence of both sex as well as either sex parents, presence as well as absence of both sex siblings and type of family.

SECTION IV

A. RELATIONSHIPS BETWEEN MF AND ADJUSTMENT AT HOME, SCHOOL AND COMMUNITY

(154) Positive and significant relationships between Masculinity-Femininity trait and adjustment at home, school and community are established.

(155) Low masculinity (femininity) possessed by the groups of samples - total sample, younger as well
as older adolescents, forward castes, backward castes, average income group, low income group, having both parents alive, having both sex siblings alive, nuclear family, large as well as medium size family is positively and significantly related to adjustment at home, school and community.

(156) The relationships between high masculinity, in boys and adjustment at home, school and community are positive and significant.

(157) The relationships between high femininity in girls and adjustment at home, school and community are positive and significant.

(158) The relationships between high masculinity and adjustment at home, school and community, for the high economic status group, are not significant.

(159) The relationships between low masculinity and adjustment at home and community are positive and significant, for the groups 'father alone alive' and joint family.

(160) The relationship between low masculinity and adjustment at school is significant and positive for the group 'mother alone alive'.

(161) The relationship between low masculinity and adjustment with community is positive and significant
for the group 'brothers alone alive'.

(162) The relationships between low masculinity and adjustment at home and school are positive and significant, for scheduled castes.

(163) The relationships between MF and adjustment at home, school and community are not significant, for 'the parent-less group, only child group, 'sisters alone alive group' and 'small family'.

SECTION V

B. RELATIONSHIP BETWEEN MF AND ACADEMIC ACHIEVEMENT

(164) Positive and significant relationship between Masculinity-femininity trait (MF) and academic achievement is established.

(165) The relationship between higher masculinity and higher achievement is positive and significant for boys, and those belonging to high economic status homes.

(166) The relationship between higher femininity and low achievement is positive and significant for girls.

(167) The relationship between low masculinity and low achievement is positive and significant for
total sample, forward castes, backward castes and scheduled castes, average and low economic groups, the group having both parents alive, the groups having siblings of both and of either sex alive, nuclear as well as joint family groups, and the groups, and the groups belonging to the large and medium size families.

(168) The relationship between MF and achievement show random trends, for the groups of samples, age belonging to the wider group, parent-less group, 'only-child position' group and the small family group.

SECTION VI

C. RELATIONSHIPS BETWEEN TOTAL ACHIEVEMENT AND ADJUSTMENT AT HOME, SCHOOL AND COMMUNITY

(169) The relationships between total achievement and adjustment at home, school and community are positive and significant, though the strength of relationship is not strong.

(170) The relationship between total achievement and adjustment at home is positive and significant for the following groups - total sample, boys, girls, younger adolescents, forward castes, backward castes, scheduled castes, average, low economic status groups,
having both parents' alive, mother alone alive, presence of either and both sex siblings, nuclear family, joint family, large family and medium size family.

(171) The relationship between total achievement and adjustment at school is positive and significant, for, total sample, girls, early adolescents, forward, backward and scheduled castes, average and low income groups, both parents alive, both sex siblings alive, nuclear family and medium size family.

(172) The relationship between total achievement and adjustment with the community is positive and significant for total sample, boys, girls, younger and older adolescents, forward castes, backward castes and scheduled castes, high economic status, average and low economic status groups, both parents alive, both sex siblings alive, joint family, nuclear family, large family and medium size family.

(173) The relationships between total achievement and adjustment at home, school and community are not significant, for the groups 'both parents not alive', 'father alone alive', only child position and 'small family'.
SECTION VII

DEVIANT GROUPS

A. Boys who possess significantly lower masculinity than that of normal girls have been identified as feminine boys; and girls who possess significantly higher masculinity than that of normal boys have been identified as masculine girls and the data has been analysed for them separately and compared to normal boys and girls.

(174) Feminine boys possess significantly lower masculinity than normal boys and girls.
(175) Masculine girls possess significantly higher masculinity than the other groups.

Masculinity-Femininity of masculine girls and feminine boys

(176) Empathy

Empathy, the feminine trait is higher in feminine boys than masculine girls. The difference in means between the deviant groups was significant at .01 level.

(177) Superiority

Superiority is higher in masculine girls than
the feminine boys. The mean difference was significant at 0.01 level.

(178) **Courage**

Courage is higher in masculine girls than the feminine boys. The difference in mean values between the two groups was significant at .01 level.

(179) **Sociability**

Sociability is higher in masculine girls. The C.R. value between the groups was significant at .01 level.

(180) **Athletic interests**

Interest in athletics is higher in masculine girls, than that of feminine boys. The difference in means was significant at .05 level.

(181) **Literary interests**

Interest in reading masculine literature is higher in masculine girls, than feminine boys. The C.R. value between the groups was significant at .01 level.

(182) **Mechanical mindedness**

Mechanical mindedness is higher in masculine girls and feminine boys. The difference in means between the groups was not significant.
(183) **Collecting interests**

Interest in collecting masculine objects is higher in masculine girls than feminine boys. The difference in means was significant at .01 level.

(184) **Vocational Interests**

Interest in masculine vocations such as engineer, scientist...is higher in masculine girls, than feminine boys. The mean difference between the groups was significant at .01 level.

(185) **Dress and appearance**

Interest in masculine dresses and appearance is higher in masculine girls than feminine boys. The mean difference between the groups was significant at .01 level.

(186) **Persuasibility**

Persuasibility, the feminine trait is higher in feminine boys, than masculine girls. The C.R. value between the groups was significant at .01 level.

(187) **Sensitive to emotions**

Sensitive to emotions, the feminine trait is higher in feminine boys, than masculine girls. The C.R. value between the groups was significant at .01 level.
(188) **Social service deeds**

Interest in social service deeds of masculine girls and feminine boys do not differ. The C.R. value was not significant.

(189) **Values**

Masculine values of masculine girls and feminine boys do not show significant difference. The mean difference between the groups was not significant.

(190) **Aesthetic sense**

Aesthetic sense in masculine girls is similar to that of feminine boys. The difference in means was not significant.

(191) **Past experience**

Remembering past experiences of childhood, the feminine trait is higher in feminine boys, narrowly followed by that of masculine girls. The difference in means between the groups was not significant.

(192) **Parental identification**

Identification with the male-sex-parent, in masculine girls and feminine boys is almost similar. The difference in means between the groups was not significant.
Friendships

Friendship patterns of masculine girls and feminine boys show no significant difference. The difference in means between the groups was not significant.

MF

The masculinity-femininity trait in masculine girls is much higher than that of feminine boys. The mean difference was significant at .01 level.

Intercorrelation of MF and 18 subtraits for masculine girls

Empathy

Empathy is positively and significantly correlated with the total MF score and one feminine trait (collecting interests).

Courage

Courage is negatively and significantly correlated with 2 masculine traits (vocational interests and parental identification) and one feminine trait (friendships).

Sociability

Sociability is negatively and significantly correlated with 3 feminine traits (collecting interests,
social service deeds and past experiences).

(198) **Athletic interests**

' Athletic interests' is positively and significantly correlated with one feminine trait (persuasibility) and negatively and significantly correlated with one feminine trait (collecting interests).

(199) **Literary interests**

' Literary interests' is positively and significantly correlated with one feminine trait (collecting interests) and negatively and significantly correlated with one feminine trait (social service deeds).

(200) **Mechanical mindedness**

Mechanical mindedness is negatively and significantly correlated with one masculine trait (dress and appearance).

(201) **Collecting interests**

'Collecting interests' is positively and significantly correlated with total MF score and one masculine trait (literary interests) and one feminine trait (empathy); and negatively and significantly correlated with two masculine traits (sociability and athletic interests).
(202) Vocational interests

Vocational interests is positively and significantly correlated with two feminine traits (social service deeds and past experiences); and negatively and significantly correlated with one masculine trait (courage).

(203) Dress and appearance

'Dress and appearances' is positively and significantly correlated with one feminine trait (past experiences), and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(204) Persuasibility

Persuasibility is positively and significantly correlated with one masculine trait (athletic interests).

(205) Social service deeds

'Social service deeds' is positively and significantly correlated with one masculine trait (vocational interests) one feminine trait (past experiences); and negatively and significantly correlated with two masculine traits (sociability and literary interests).
Past experiences

'Past experiences' is positively and significantly correlated with the total MF score, two masculine traits (vocational interests, dress and appearances), one feminine trait (social service deeds); and negatively and significantly correlated with one masculine trait (sociability).

Parental identification

Parental identification is negatively and significantly correlated with one masculine trait (courage).

Friendships

('Friendships' is negatively and significantly correlated with one masculine trait (courage).

Total MF

Total MF score is positively and significantly correlated with three feminine traits (empathy, collecting interests and past experiences).

Superiority, sensitive to emotions, values and aesthetic sense are not significantly correlated with either masculine or feminine traits.
Intercorrelation of MF and 18 sub-traits for feminine boys

(210) **Empathy**

Empathy is negatively and significantly correlated with one masculine trait (sociability) and one feminine trait (sensitive to emotions).

(211) **Superiority**

Superiority is negatively and significantly correlated with two masculine traits (athletic interests and dress and appearances).

(212) **Sociability**

Sociability is negatively and significantly correlated with one masculine trait (dress and appearances) and one feminine trait (empathy).

(213) **Athletic interests**

'Athletic interests' is positively and significantly correlated with the total MF score and negatively and significantly correlated with one masculine trait (superiority) and one feminine trait (collecting interests).

(214) **Literary interests**

'Literary interests' is positively and significantly correlated with one masculine trait (vocational interests).
(215) Mechanical mindedness

'Mechanical mindedness' is negatively and significantly correlated with two feminine traits (collecting interests and past experiences).

(216) Collecting interests

Collecting interests is negatively and significantly correlated with two masculine traits (athletic interests and mechanical mindedness).

(217) Vocational interests

Vocational interests is positively and significantly correlated with the total MF score and one masculine trait (literary interests) and one feminine trait (social service deeds).

(218) Dress and appearances

Dress and appearances is negatively and significantly correlated with two masculine traits (superiority and sociability) and one feminine trait (persuasibility).

(219) Persuasibility

Persuasibility is negatively and significantly correlated with one masculine trait (dress and appearances).
(220) **Sensitive to emotions**

'Sensitive to emotions' is negatively and significantly correlated with one masculine trait (parental identification) and one feminine trait (empathy).

(221) **Social service deeds**

'Social service deeds' is positively and significantly correlated with one masculine trait (vocational interests); and negatively and significantly correlated with one masculine trait (values).

(222) **Values**

'Values' is negatively and significantly correlated with one feminine trait (social service deeds).

(223) **Past experiences**

'Past experiences' is positively and significantly correlated with one masculine trait (parental identification); and negatively and significantly correlated with one masculine trait (mechanical mindedness).

(224) **Parental identification**

Parental identification is positively and significantly correlated with one feminine trait (past experiences) and negatively and significantly correlated with one feminine trait (sensitive to emotions).
Total MF score is positively and significantly correlated with two masculine traits (athletic interests and vocational interests).

Courage, aesthetic sense and friendships are not significantly correlated with either masculine or feminine traits.

B. Adjustment at home, school and community for masculine girls and feminine boys

Adjustment at home, school and community for masculine girls is high.

Adjustment at home and school for masculine girls is significantly higher (.01 level) than that of girls.

Adjustment with the community for masculine girls and girls do not differ. The mean difference was not significant.

Adjustment at home, school and community for feminine boys is low.

Adjustment at home, school and community for feminine boys is significantly (.01 level) lower than that of boys.
III Academic achievement

(231) Total achievement of masculine girls is high.

(232) Total achievement of masculine girls is significantly higher (.01 level) than that of girls.

(233) Total achievement of feminine boys is low.

(234) Total achievement of feminine boys is significantly lower (.01 level) than that of boys.

C. (a) Relationship between MF and adjustment at home, school and community for masculine girls and feminine boys

(235) The relationship between MF and adjustment at home is positive and significant for the feminine boys belonging to 'low income' and 'sisters alone alive' groups. The relationships between MF and adjustment at home for the group of feminine boys are negative and insignificant, except the positive and insignificant relationship for scheduled castes. The relationships between MF and adjustment at home for the groups of masculine girls are positive and insignificant, except the negative and insignificant relationship for 'brothers alone alive' group.
(236) The relationships between MF and adjustment at school for the groups of masculine girls and feminine boys are insignificant and show positive as well as negative directions.

(237) The relationships between MF and adjustment with the community are negative and significant for the feminine boys of 'older age group', 'backward castes' and 'having both sex siblings alive'. The relationships of MF with adjustment with the community for other groups of feminine boys and groups of masculine girls are not significant and show positive and negative directions.

D. (b) Relationships between MF and Achievement for masculine girls and feminine boys

(238) The relationship between MF and total achievement for feminine boys is not significant.

(239) The relationships between MF and achievement in Malayalam and achievement in social studies are negative and significant for feminine boys of older age group.

(240) The relationship between MF and achievement in Malayalam is positive and significant for feminine boys of the low income group.
(241) The relationships between MF and total achievement is positive and significant for total sample of masculine girls and of younger age group, and 'having both sex siblings alive group'.

(242) The relationships between MF and achievement in social studies and mathematics are positive and significant for the groups of masculine girls - total sample, early adolescents, forward castes, having both sex siblings alive, having both parents alive, and joint family.

(243) The relationship between MF and achievement in biology is negative and significant for masculine girls 'having brothers alone alive'.

(244) The relationships between achievement and adjustment in Mathematics is positive and significant for masculine girls belonging to medium-size family.

E. (c) Relationships between Achievement and adjustment for masculine girls and feminine boys

(245) The relationships between achievement and adjustment at home, school and community, for groups of masculine girls and feminine boys are not significant and show negative and positive directions, except the positive and significant relationship between adjustment with community and achievement for masculine
girls belonging to medium size family.

SECTION VIII

PARTIAL CORRELATIONS

(246) The relationship between MF and achievement is not influenced by adjustment (at home, school and community) for the total sample as well as boys and girls.

(247) The relationship between MF and adjustment (at home, school and community) is not influenced by achievement, for total sample as well as boys and girls.

(248) The relationship between achievement and adjustment (at home, school and community) is not considerably influenced by MF, for total sample, as well as boys and girls.

(249) The relationship between MF and achievement is not influenced by adjustment (at home, school and community) for masculine girls and feminine boys.

(250) Random relationships are observed between MF and adjustment (at home, school and community) and between achievement and adjustment, for masculine girls and feminine boys.
Contributions of the Study

Review of literature on masculinity-femininity shows that the trait can include a number of sub-traits. But research studies have been conducted only on particular aspects of the trait masculinity-femininity (Empathy, Persuasibility, Superiority, Courage... Mechanical mindedness, interests...) or on a limited number of traits. Terman and Miles' study covers the measurement of the trait in 7 areas. The Kerala University Personality Scale also measures the trait MF covering seven areas. The present study incorporates eighteen sub-traits and thus makes the measurement of masculinity-femininity as exhaustive as possible.

In the Terman and Miles' study quantitative comparisons of men and women in groups having difference in age, intelligence, education, interests, occupation and cultural milieu were made. In the present study, sex differences, age differences, influence of religion, economic status of family as well as human relationships as related to masculinity-femininity of adolescents were further studied.

The study has been conducted on the adolescent population, since earlier studies have shown that the
peak of masculinity in men and women is reached at the adolescent stage, thus making the measurement of the trait more accurate.

Previous studies have established the relationship between adjustment at various situations and academic achievement. The influence of the trait masculinity-femininity on adjustment patterns and academic achievement needs emphasis, since with the onset of modernization and technological innovations, MF in men and women shows a tendency towards increase in masculinity. Hence, the importance of the study deserves special emphasis.

The population for the study constitutes all the boys and girls of the adolescent age group (14+ to 19+), studying in Standard X in the schools of Kerala. The final sample was selected using the stratified sampling method and is restricted to the students of Trivandrum Educational District. The sample was representative of the student population of Kerala, with respect to religious faiths, economic conditions, school efficiency, type of school and culture of the state. Hence, the findings of the study can be generalized on other population groups of the adolescent age.
The major findings in the measurement of the trait MF and 18 sub-traits were supported by the findings of earlier researchers. Significant sex differences in the traits were noticed. Masculine traits were found to be significantly higher in boys with respect to superiority (Brachfeld, Suthir Kumar, Fenslason and Ruth Hertz), Courage (Garai, Hemmings, Santhamma Zachariah, Jersild, Alex Thomas), Sociability (Beach), literary interests (Witty, Crow and Crow, Patel, Johnson, Feingold), mechanical mindedness (Britt, Klineberg), Vocational interests (Gough, Terman and Miles, Tyler, Norton), dress and appearance (Ryan, Silverman); while feminine traits were significantly higher in girls, such as empathy (Koffka, Murphy), collecting interests (Lehman and Witty, Garai and Scheinfeld), Persuasibility (Janis and Field) and aesthetic sense (Adorno, Battorf). Apart from the previous finding being re-established, the present study shows further that the feminine traits, social service deeds, sensitive to emotions, past experiences and parental identification were significantly higher in females. Also, masculine values, athletic interests and friendship patterns were similar to both sexes.

The study re-established the relationship between masculinity-femininity and academic achievement (Thomas
Mathew, Goedinhans, Terman, Morgan) and the relationships between adjustment at home, school and community and academic achievement (Patel and Joshi, Jain, Dhaliwal, Gilmore, Pillai, Srivastava, Sharma, Steinzor, Kuntz and Swenson) to be positive and significant. Also, the study established that masculinity-femininity was related to adjustment at home, adjustment at school, and adjustment with the community, the relationships being positive and significant. The findings of the study further show that both MF and academic achievement were higher, for the adolescents belonging to the high economic strata. Another major contribution was the study of deviant personalities - masculine girls and feminine boys. The findings show that the highly masculine girls possess more masculine traits, higher adjustment at home, school and community and have higher academic achievement. Again, the feminine boys possess more feminine traits, low achievement and comparatively lower adjustment at home, school and community. The study has been conducted on a number of groups of samples - boys, girls, adolescents of the age groups 14+ to 16+ and 16+ to 19+ adolescents of forward castes, backward castes and scheduled castes, high economic status, average economic
status and low economic status and having both pa­
rents alive, having both parents dead, mother alone
alive, father alone alive, both sex siblings alive,
'only child position', brothers alone alive, sisters
alone alive, joint family, nuclear family, large
family, medium size family and small family - which
were not been conducted before and thereby making
the study elaborate.

Suggestions

The conclusions of the study can be grouped
around the following points:-

(1) Masculinity is related to achievement in
school, for total sample as well as sub-samples.
(2) A number of traits have been identified as
related to masculinity and like-wise to femininity.
(3) The identified traits can be developed or
retarded in adolescents.

Based on the conclusions and the above state­
ments the following suggestions are made.

I. The process of socialisation of children has
to be reoriented with changes made in the present em­
phasis of sex stereotyping, not only in terms of dress,
discipline and emphasis, but also in terms of perso­
nality traits.
(a) Guidance and counselling centres for parents are required to help them understand the need for a changed perspective on sex-stereotyping through the process of socialisation.

(b) Teachers, community centre organisers, youth club organisers and others involved with adolescents as well as younger children have to be provided with orientation courses to enable this concept of masculinity to influence their activities and outlook.

(c) The importance of development of the traits identified as been related to masculinity and therefore to achievement for girls as well as boys has to be impressed upon parents.

II. The next agency of socialisation, the community has to also understand the changed requirement of the members in terms of development of masculinity.

(a) Adult members of the community have to be helped to view masculinity as an achievement variable, rather than a male-sex-variable.

(b) Community activities that provide for development of masculinity in boys and girls have to be provided. Sports programmes, literary activities and communal functions have to be provided.

(c) The activities have to be specially oriented towards the development of masculinity.
(d) Opportunities for bringing boys and girls together, through proper activities have to be provided.

III. The third agency of socialisation, the school has to play a more important role in the development of masculinity.

(a) Mixed schools should be preferred to separate schools for boys and girls.

(b) Books on science, fiction, adventure, lives of greatmen, heroic deeds...etc. should be made available to children of all age groups. Library facilities at home, school and community centres should be developed.

(c) Information on vocations can be made available to children at the school level; and both boys and girls should be encouraged to select masculine vocations.

(d) Sex-stereotyping of vocations should also be removed.

(e) Athletic activities should be made part of school curriculum and facilities should be made available to both boys and girls in group activities.

(f) Group discussions, seminars, tours...etc. can be arranged at the school level, and boys and girls should be encouraged to participate in these activities.
(g) Boys and girls should be encouraged in making scientific models, and necessary provisions are to be made so that students can conduct experiments.

(h) Activities like N.C.C. including Naval, Air Wing and Riffles, parachute jumping, mountaineering etc. should be utilised by girls as well as boys at school level.

(i) As masculinity of boys and girls can be measured, guidance and counselling centres in the school and community have to be started to enable boys and girls to develop masculinity.

Suggestions for further work

(1) The study can be conducted on focussed groups of adolescents belonging to different locales like coastal and hilly areas and also particular occupations like fishing, coir making, weaving and others.

(2) The relationship of family environment to MF needs exploration.

(3) As the relationship between the literature read by a community and need for achievement have been identified, it will be useful to relate literature to MF.