CHAPTER - VII

SUMMARY

7.1 SUMMARY

The aim of the present study was to explore the differences in the areas of Intelligence, Mental Health Conditions (Depression, Self-Esteem, and State Anxiety and Trait anxiety), Parent-Child Relationship (Protecting, Rejecting, and Loving), and Career Choice Patterns (Administrative, Enterprising, Defence, Sports, Creative, Performing, Medical, Technical, Expressive, Computational, Humanitarian, Educational) amongst only, first-born, second-born, and third-born college students coming from one, two, and three-child families.

Keeping in view the focus of the study, the following objectives were formulated.

OBJECTIVES OF THE STUDY:

Descriptive

The present research aims:

- To explore the prevalence of the three family sizes (small, medium, and large size family) in the tri city of Chandigarh, Panchkula, and Mohali.
- To explore the prevalence of four birth orders (only, first, second, and third borns) in the tri city of Chandigarh, Panchkula, and Mohali.

Family size:

- To investigate whether intelligence of college students would differ across the three family sizes (small, medium and large size families).
- To examine whether the mental health conditions (levels of depression, self-esteem, trait anxiety, and state anxiety) of college students would differ across the three family sizes (small, medium, and large size families).
To investigate whether perception of the college students’ relationship with their parents (in terms of protecting, rejecting, and loving) would differ across the three family sizes (small, medium and large size families).

To scrutinize whether the preference of college students for taking up various occupational fields (i.e. Administrative, Enterprising, Defence, Sports, Creative, Performing, Medical, Technical, Expressive, Computational, Humanitarian, Educational) would differ across the three family sizes (small, medium, and large size family).

**Birth order:**

To explore whether the levels of intelligence of college students would differ across the four birth orders (only, first, second, and third borns).

To inspect whether the mental health conditions (levels of depression, self-esteem, trait-anxiety, and state anxiety) of college students would differ across the four birth orders (only, first, second and third borns).

To search whether perception of the college students’ relationship with their parents (in terms of protecting, rejecting, and loving) would differ across the four birth orders (only, first, second, and third borns).

To probe and assess whether the preference of college students for taking up various occupational fields (i.e. Administrative, Enterprising, Defence, Sports, Creative, Performing, Medical, Technical, Expressive, Computational, Humanitarian, Educational) would differ across the four birth orders (only, first, second, and third borns).

Based on the review of literature, models, and theoretical framework, the following hypotheses have been formulated for the present research:

**HYPOTHESES:**

Based on the research questions derived from the review of literature, the hypotheses are as ahead. It is expected that:
**FAMILY SIZE:**

**Intelligence:**

- **H1** Intelligence of college students in small size families would be higher than the other two family sizes.

- **H2** Intelligence of college students in large size families would be lower than the other two family sizes.

**Mental health conditions:**

- **H3** Depression of college students in large size families would be higher than the other two family sizes.

- **H4** Depression of college students in the medium size families would be lower than the other two family sizes.

- **H5** Self-esteem of college students in small size families would be higher than the other two family sizes.

- **H6** Self-esteem of college students in large size families would be lower than the other two family sizes.

- **H7** State anxiety of college students in small size families would be higher than the other two family sizes.

- **H8** State anxiety of college students in large size families would be lower than the other two family sizes.

- **H9** Trait anxiety of college students in large size families would be higher than the other two family sizes.

- **H10** Trait anxiety of college students in small size families would be lower than the other two family sizes.
**Parent child relationship:**

H11 the perception of **relationship with parents** of college students in small size families would be high on protecting and loving; and low on rejecting than the other two family sizes.

H12 the perception of relationship with parents of college students in large size families would low on protecting and loving; and high on rejecting than the medium size family.

**Career choice patterns:**

H13 the **preference** of college students in small size families would be higher for administrative, enterprising, medical and technical careers than the other two family sizes.

H14 the preference of college students in medium size families would be higher for humanitarian, educational, and expressive, and computational careers than the other two family sizes.

H15 the preference of college students in large size families would be higher creative, performing, defence, and sports careers than the other two family sizes.

**BIRTH ORDER:**

**Intelligence:**

H1 **Intelligence** of the only and first borns would be higher than the later borns.

H2 intelligence of the last borns would be lower than the early borns.

**Mental health conditions:**

H3 **Depression** of the only and first borns would be higher than the later borns.

H4 Depression of the middle borns would be lower than the early and later borns.
H5 **Self-esteem** of the only and first borns would be higher than the later borns.

H6 Self-esteem of the middle and last borns would be lower than the early borns.

H7 **State anxiety** of the only and first borns would be higher than the later borns.

H8 State anxiety of the middle borns would be lower than the last borns.

H9 **Trait anxiety** of the early borns would be lower than the other birth orders.

H10 Trait anxiety of the later borns would be higher than the other birth orders.

**Parent child relationship:**

H11 only, first, and last borns would perceive their **relationship with their parents** as high on protecting, and loving; and low on rejecting than the middle borns.

H12 later borns would perceive their relationship with their parents as low on protecting, and loving; and high on rejecting than the only and first borns.

**Career choice patterns:**

H13 **preference** of only and first-borns would be higher for administrative, enterprising, medical and technical careers than the middle and last-borns.

H14 preference of middle-borns would be higher for humanitarian, educational, and expressive, and computational careers than the only, first, and last-borns.

H15 Preference of last-borns would be higher for creative, performing, defence, and sports careers than the only, first and middle-borns.

H16 The interaction effects between family sizes x birth orders would be explored for all the aforementioned variables.

**Sample for the present study**

The present study used a multi-stage sampling technique whereby the initial sample (cross-sectional) of 960 college students (equal males and equal females) was
drawn by stratified random sampling from various colleges of tri city. A general survey (refer to appendix) was done to collect the personal background/demographic information consisting of their family size, ordinal position (sex wise), birth order, and family structure. Thereafter, using criterion sampling in the second stage, the 960 college students were matched on the following criteria: general information (age, qualifications, and academic grade), parental background (family structure, socio-economic status, parental educational background, work status), children’s spacing and gender (spacing and gender). After these personal and familial controls, we were left with 670 students who were unequally divided in the categories of family size and birth order. The final sample of the present study encompassed the third stage of sampling. As the number of college students in each of the aforementioned categories were unequal, (the minimum being around 86), 80 college students were randomly selected and uniformly distributed in each of the categories thus giving us a total of 480 college students which included 80 only children (from small sized families), 160 from medium sized families (80 first borns and 80 second borns); and 240 from large size families (80 first borns, 80 second borns, and 80 third borns). The final sample comprised of 480 college students (age range: 18-21 years) that were drawn from the colleges of tri-city of Chandigarh, Panchkula and Mohali.

Tools used in the present study

The following standardized tests were employed in the present research to explore the differences in the areas of Intelligence, Mental health conditions (depression, self-esteem, trait anxiety, and state anxiety), Career Choice Patterns (Administrative, Enterprising, Defence, Sports, Creative, Performing, Medical, Technical, Expressive, Computational, Humanitarian, Educational), and Parent-Child Relationship (Protecting, Rejecting, and Loving) amongst only, first-born, second-born, and third-born college students coming from one, two, and three-child families: Self-Rating Depression Scale (Zung 1965), Rosenberg’s Self-Esteem Scale(1965), State-Trait Anxiety Scale (Speilberger, 1970), Comprehensive Interest Schedule (Sanjay Vohra,1992), Parent Child Relationship Scale (Nalini Rao 1989), Standard Progressive Matrices(J. C. Ravens 1936).
Statistical analyses

The data of all the birth orders vis-à-vis the only, first, second, and third born college students coming from one, two, and three child families was pooled and tabulated. The appropriate preliminary statistics in terms of the prevalence was calculated. To check whether the differences in the means were significant, two-way Analysis of Variance (ANOVA) with unequal sample sizes was applied (family size and birth order were unequal and independent of each other). Based on the results of ANOVA, further post hoc analysis (Scheffe’s) was administered on the psychological variables showing significant F ratios; which thus helped in drawing the results and conclusions of the study.

CONCLUSIONS

DESCRIPTIVE ANALYSES

The overall report of the descriptive analyses in terms of the distribution of family size reveals that there is a preponderance of the medium size family (2-child families) with a whopping 49%, followed by the large size families (3-child families) with a total of 34%, and the small size family (1-child families) being the least in number with 17% of such families prevalent.

The distribution of birth order has revealed that the first borns (33%) and the second borns (33%) are in abundance, and the only children (17%) and third borns (17%) constitute the lesser portion of the sample. This prevalence throws light on the psychological impact that birth order has on college students.

DIFFERENTIAL ANALYSES

The overall report of differential analyses (two-way ANOVA) in relation to the psychological factors i.e. Intelligence, Mental Health Conditions (Depression, Self-Esteem, and State Anxiety and Trait anxiety), Career Choice Patterns (Administrative, Enterprising, Defence, Sports, Creative, Performing, Medical, Technical, Expressive, Computational, Humanitarian, Educational), and Parent-Child Relationship (Protecting, Rejecting, Loving), reveals that there were significant
differences on the main effect of family size viz. small, medium, and large; main effect of birth order viz. only, first, second, and third born young adults. The finding further reveals that the interaction effect of the family size and birth order emerged to be significant on only one dimension of mental health conditions i.e. depression.

INTELLIGENCE

Family size

- The two-way Analysis of Variance has not showed up any significant differences on any of the intellectual capacities of young adults in terms of family size, implying thereby that a college student’s intelligence is in no way determined by the family size (small, medium or large size family) he belongs to.

Birth order

- There is no significant difference in the mean scores of only, first born, second born, and third born children on the psychological variable of intelligence.

MENTAL HEALTH CONDITIONS

Family size

- Depression and state anxiety came out to be significant and further analyses revealed that the small size families are the highest on depression whereas a complete reverse trend in terms of state anxiety showed up where the small size families were the least affected.

- Although the means of self-esteem and trait anxiety fall in the normal range, family size does not seem to affect the college students; and does not have an impact on them.

Thus, no clear cut and directional differences emerged in terms of family size affecting the mental health conditions of the college students.
**Birth order**

- Birth order revealed a differential impact on self-esteem revealing a trend whereby the only children are the highest, followed by the 2nd borns, the 1st borns, and the 3rd borns being the least affected. Thus, the second borns possess the highest self-esteem.
- Birth order has an impact on state anxiety but it shows an opposite trend revealing the 1st borns to be the highest, followed by the only borns, the 3rd borns, and the 2nd borns being the least.

**Interaction**

- The interaction of family size and birth order came out to be significant on the psychological variable of depression revealing that the only, first and third borns of small and large size family were high; and 2nd borns of all family sizes were low on depression.

**PARENT-CHILD RELATIONSHIP**

**Family size**

- All the three psychological sub variables viz. perceived protecting, loving, and rejecting parental behaviors have emerged following a unidirectional pattern of the small size families being high, medium being moderate, and the large size families being low on protecting, loving, and rejecting parental behaviors respectively.

**Birth order**

- For all the three psychological sub variables viz. perceived protecting, loving, and rejecting parental behaviors, a similar trend has emerged with the only children being the highest, followed by the 1st borns, the 3rd borns, and the 2nd borns being the least on all the three sub variables respectively. Thus it implies it can be proposed that the only children are the most protected and loved; and
rejected at the same time, and the 2nd born young adults being the least on protecting, loving and the rejecting parental behaviors.

**Interaction**

- The interaction effect of family size and birth order did not emerge to be significant in any of the psychological variables (protecting, loving, and rejecting).

**CAREER CHOICE PATTERNS**

**Family size**

- Although the sample has given their preferences towards various occupational fields, the two-way Analysis of Variance has not showed up any significant differences on any of the occupational fields in terms of family size, implying thereby that family size does not affect the college student’s choice/preference of a particular occupation.

**Birth order**

- Though different birth orders preferred various occupational fields, alongside also differing from each other in their strength of choice (determined through the sten scores) for those careers, one common trend that emerged amongst them was that the strength of choice of the second born college students was always the lowest amongst all the other birth orders.
- The trend of choice for *administrative* and *expressive* occupational fields was the same for the different birth orders revealing the only borns having the strongest preference for these careers, followed by the 1st borns, the third borns, and the 2nd borns having the weakest strength of choosing them as their occupational fields; while the hierarchy for the *expressive* occupational choice was in contradiction to them.

**Interaction**

- The interaction effect of family size and birth order did not emerge to be significant on any of the psychological variables.
7.2 IMPLICATIONS OF THE STUDY

The present study divulged that neither family size nor birth order seems to affect the college student’s cognitive abilities. The present study further revealed that **family size** contributes to majority of the college students’ mental health conditions and parent child relationship while **birth order** affects majority of the college students’ mental health conditions, familial factors, and career choice patterns.

In light of the findings of the present research and related literature review, the following implications have been outlined for reviewing:

- Focusing on the **mental health conditions**, Sulloway’s concept of intra-familial niche- differentiation, equity heuristic, and Blake and Downey’s concept of resource dilution theory can be used for school children to reduce depression, and anxiety; and enhance self-esteem of the later borns and children from large size families. At the **preventive level**, this can be done through seminars, lectures, psycho-educational programs especially in order to help them become aware, understand and practice equal division of time and attention to all the children for the prevention of depression and anxiety. At the **remedial level**, Individual and group counseling can be done for both the parents of later borns. Further, children with depression and anxiety, besides others, can also be checked out by the clinical psychologists, on their family size and birth order; and individual and group counseling sessions can be given to the parents to help review and adopt new parenting styles with equal division and attention.

- The **parent-child relationship** of perceived protecting, loving, and rejecting parental behaviors have suggested that on the basis of Sulloway, and Blake and Downey’s theoretical explanations, counseling shall be done for both parents and children to enhance the parent-child relationship of the later (second and third) borns and children from large size families. Nowadays the teenagers are an at-risk population who feel withdrawn and neglected from their parents due to lack of communication and understanding. The cases which shall gain the maximum benefit out of these will be of parent-child
conflict, rebellious and neglected children; and children with emotional-behavioral problems. At the preventive level, they can be suggested and informed about effective parenting practices through parent–teacher meetings, seminars, and specialized counseling programs. At the remedial level, they can be helped to improve communication, understanding, and the overall parent-child relationship through specialized psycho-educational programs, cognitive behavior therapy, rational emotive behavior therapy, adolescent and family counseling sessions.

- In terms of career choice patterns, keeping in mind the aforementioned findings, it is clear that due to lack of parental time, attention, and resources (Sulloway’s, and Blake and Downey’s theoretical explanations) children are facing difficulties in career choice. At the preventive level, counselors working in the areas of intelligence, ability, personality, values, etc, can also consider using birth order of children in counseling them for their future career paths. They can also develop various specialized screening instruments catering to the children’s interests and abilities. At the remedial level, children whose abilities and interests are not in congruence with their choice can also be assisted and counseled individually with the help of the present study’s findings.

7.3 SUGGESTIONS FOR FUTURE RESEARCH

It is hoped that this study will stimulate further research.

- For future research, it is recommendable to increase the sample size and collect and compare data from the north region and the south region to see cross cultural differences so that the power and generalization of the study can be increased.
- The current endeavor was a cross-sectional study, so the future researches can carry out longitudinal study and explore within-family designs to unravel interesting findings.
- The findings on the variable of intelligence surprisingly did not reveal any significant differences. Future researches may want to relook and re-establish the findings in this area considering the within and between-family confounds.
Furthermore, researchers may want to **collect data** from both **parents** and **children** or to employ the observation method to countercheck the measured parent-child relationship. All the dimensions of the scale can be studied and analyzed to get a broader and clearer perspective of the parent-child relationship.

An attempt can also be made to **explore** and compare the **differences** between science and art/business students, as well as its impact on their career choice patterns.