

The Birth Order and Personalities of Medical Students

TINNAKORN CHAN-OB, M.D.*,
MANEE PINYOPORNPANICH, M.D.*,
NAHATHAI KUNTAWONGSE, M.D.*

VUDHICHAI BOONYANARUTHEE, M.D.*,
SUTHI INTAPRASERT, M.P.A., M.S.W. *,

Abstract

The purpose of this study was to determine how birth position i.e. first-born, middle-born, lastborn, and only child, correlates with personality.

Material and Method : One hundred and eighty from 186 (97%) 1st year medical students of Chiang Mai Medical School were asked to complete a questionnaire and take a personality test. The data obtained included age, sex, Grade Point Average (GPA), and family background i.e. birth order and the students' personality profiles, which were assessed by the California Psychological Inventory (CPI).

Results: The results showed that only children and lastborn had more positive personality factors than other groups. They had more ambition, breadth of interests, versatility, self confidence, clear-thinking, intelligence, and independence than first-born and middle-born (Cs and Ai scale on CPI).. In addition, the students whose parents had died, separated, or divorced had some personality profiles that differed from the others. The findings both supported and contradicted other papers.

Key words : Birth Order, Medical Student, Personality

CHAN-OB T, BOONYANARUTHEE V,
PINYOPORNPANICH M, INTAPRASERT S, KUNTAWONGSE N
J Med Assoc Thai 2002; 85: 97-101

* Department of Psychiatry, Faculty of Medicine, Chiang Mai University, Chiang Mai 50200, Thailand.

There are many studies of how birth order relates to personality, neurotic pattern, psychotic disorder or even academic performance⁽¹⁻⁵⁾. Family size and birth order has a direct effect on siblings. Nowadays, families in many countries tend to have fewer children. This trend is following the same path in Thailand. The number of siblings has a distinct impact on each individual's personality. Many studies revealed that the first-born had a favorable personality, but this may be because they tend to be self-centered due to overprotection or being spoilt by their parents.

Nowadays, it is more common in all levels of society to have only one child^(7,8). The difference in personality among birth positions has often been investigated. The objective of this study was to find the relationship between the personalities of medical students and their birth order because this kind of research is rarely carried out when there is a need for medical student selection and development.

MATERIAL AND METHOD

To find this relationship, 186 first year medical students were asked to complete the questionnaires, which consisted of identification data, family background, Grade Point Average (GPA). The CPI (California Psychological Inventory) administered for this study was the old version developed by Dr. Harrison G. Gough, and which has been in use since 1957⁽¹⁾. The old version of the CPI was translated into Thai by Dr. Narongsak Channuan and his associates in 1980. The CPI is one of the psychological systems, developed for assessing normative behavior in a population that is involved in everyday social living and constructive achievement. It consists of 4 true/false items and 18 scales that measure four aspects i.e., 1) poise, ascendancy, self-assurance and interpersonal adequacy, 2) socialization, responsibility, interpersonal values, and character, 3) achievement potential and intellectual efficacy and 4) intellectual and interest modes. It usually takes 45-60 minutes to administer⁽⁹⁾.

The CPI has been of considerable use in many studies for different purposes. Consequently, this study used the CPI as a psychological test to determine which scales were related to the medical students' birth order. All 18 original scales were chosen as a tool to find the correlations and differences.

For statistics analysis, SPSS for Windows version 9.0 was used.

RESULTS

One hundred and eighty out of 186 students responded to the questionnaires (97%). They were categorized into four groups,; 1) the first-born group, who were the oldest children regardless of how many siblings they had, 2) the middle-born group, who were the children in the middle position among three or five siblings, or the second or third position among four siblings, 3) the lastborn, and 4) the only child group. The percentage of population ranging from the first-born to the only child was 41 per cent, 31 per cent, 32 per cent, and 10 per cent, respectively. The male: female ratio was 88: 92, 1 : 1.04. Mean age was 17.90 years old (S.D.=0.96), with no difference among the groups. Grade Point Average of all students was 3.72, S.D.=0.62, with no difference among the groups.

In terms of the students' family background, most parents were in the age group of 45-54 (61%-65%), alive (94-99%), married and living together (87%). Their average education reached bachelor degree level (34-39%). Most of them were government officials or civil servants (43 %). See Table 1.

When comparing the groups whose parents were divorced or separated with those whose parents lived together, the results revealed that the divorced and separated parents group had significantly lower scores on Communality (Cm) than those whose parents lived together.

Eleven out of 180 samples had fathers who had died. The comparison of CPI Profiles between the group of students whose fathers had died and those whose fathers were still alive demonstrated that Psychological Mindedness (Py) distinguished the two groups.

The scale Achievement *via* conformity (Ac) and Psychological Mindedness (Py) correlated moderately "Ac" was correlated positively with age, while "Py" was correlated negatively ($r=0.70$; $p=0.058$, $r=0.70$; $p=0.052$ respectively).

When comparing the personality profiles of all groups, there was no significant difference of CPI profiles. When comparing personality profile of only children with other groups (two or more siblings), Capacity for status (Cs) and Achievement *via* independence (Ai) were significant factors that distinguished the two groups. ($p=0.058$, 0.049), respectively. When comparing each group, it was found that, 1) no significant difference existed between the first-born and middle-born, 2) The

Table 1. Backgrounds of the medical students' parents.

| Age of parents* | Father | % | Mother | % |
|-----------------------------|--------|----|--------|----|
| <45 | 29 | 16 | 66 | 33 |
| 45-54 | 117 | 65 | 109 | 61 |
| 55-64 | 27 | 15 | 5 | 3 |
| >65 | 7 | 4 | 0 | |
| Present status of parents** | | | | |
| Alive | 169 | 94 | 179 | 99 |
| Dead | 11 | 6 | 1 | 1 |
| Marital status of parents** | | | | |
| Married and living together | 157 | 87 | | |
| Married but separated | 3 | 2 | | |
| Divorced | 8 | 4 | | |
| Widowed | 12 | 7 | | |
| Education level* | | | | |
| Uneducated | - | | 1 | |
| Primary | 21 | 12 | 42 | 23 |
| Junior-high school | 15 | 8 | 12 | 7 |
| High school | 22 | 12 | 14 | 8 |
| Diploma | 20 | 11 | 15 | 8 |
| Bachelor | 60 | 34 | 71 | 39 |
| Master | 31 | 17 | 18 | 10 |
| Doctorate | 8 | 4 | 4 | 2 |
| Unspecified | 1 | | 3 | 2 |
| Occupation** | | | | |
| Government officials | 73 | 43 | 75 | 42 |
| Own business | 29 | 17 | 23 | 13 |
| Trader /merchant | 24 | 14 | 25 | 14 |
| Private organization | 18 | 11 | 16 | 9 |
| State enterprise | 11 | 7 | 5 | 3 |
| Farmer | 9 | 5 | 7 | 4 |
| Unemployed | 3 | 2 | - | |
| Housekeeper | - | | 27 | 15 |
| Unspecified | 2 | 1 | - | |

* No difference among different groups

** p <0.050

Table 2. Some CPI variables that distinguished subjects who had different family backgrounds.

| | Mean difference | Std. error difference | 95% confidence interval of the difference | | Sig. (2-tailed) |
|-------|-----------------|-----------------------|---|---------|-----------------|
| | | | Lower | Upper | |
| *Cs | -4.5583 | 2.3872 | -9.2736 | 0.1569 | 0.058 |
| *Ai | -5.0466 | 2.2350 | -9.7373 | -0.3560 | 0.036 |
| **Cm | -7.3249 | 3.2870 | -13.8234 | -0.8263 | 0.027 |
| ***Py | 5.3967 | 1.4676 | 2.2021 | 8.5912 | 0.003 |

* only child vs multiple child family

** separated or divorced parents vs non-separated or non-divorced parents

*** father dead vs father alive

Socialization (So) scale distinguished the first-born from the lastborn, but this was not statistically significant ($p = 0.083$), 3) Capacity for status (Cs) between the first-born and the only child was significant ($p = 0.057$) whereas, the Ai had some degree of correlation ($p = 0.081$), 4) there was difference between the middle-born and lastborn, and 5.) there was also no difference between the lastborn and the only child.

DISCUSSION

The results showed that no CPI scales were different among the four groups ; of first-born, middle-born, lastborn and only child. However, when comparing each group, the only child showed higher scores on Capacity for status and Achievement *via* Independence than other groups. The only child yielded more scores on Capacity for status and Achievement *via* Independence, while the lastborn scored on Socialization compared to first-born. This indicated that the only child was more ambitious, had broader interests, more versatility, self confidence, clear-thinking, intelligence, and independence than the first-born. This finding corresponded to other studies e.g. Mellor S, who found that developmental outcome was more positive for the only child, first-born, and children who came from two-child families than for all other comparison groups. He found that the only child had more capabilities than other groups, even first-born⁽²⁾. Byrd B *et al* studied 120 adults in terms of separation-individuation, using the California Psychological Inventory, and found that the main effects of birth order and sex are significant in the process of separation-individuation, and the only child is less autonomous than the oldest one⁽³⁾.

Schultz examined the leadership scale and found that research has repeatedly supported the belief that oldest children should rate higher than later born children on the California Psychological Inventory Scales⁽⁴⁾. The present study found the same characteristics on the Dominance scale. However, the results did not show any difference among birth position on such a scale.

Many studies have shown that the first-born was viewed as the most favored birth position. Ishiyama *et al* studied 194 high school students and found that the first-born showed less fear of negative consequences in academic success than the lastborn and middle-born⁽⁵⁾. Some studies mentioned birth order and GPA and they found that the first-born demonstrated a significantly higher GPA than those born later whereas the present study did not find any difference⁽⁶⁾.

One interesting point in the findings was a significant correlation between Communality (Cm) and family harmonization. The students whose parents were separated or divorced yielded lower scores on Cm than those whose parents lived together. Low Cm indicated unconventionality, and changeable, complex inner life. Students who had family problems could be seen in the results. This finding could probably help in the management of whom it may concern (i.e. students' advisors, teachers) to be aware of forthcoming problems in the future.

On the contrary, those whose father had died (7 students), had more positive attributes than those whose fathers were alive. The personality of students whose father had died tended to possess insight about people (but not necessarily warmth or sympathy), foresight, critical judgment. and independence. Their age at the time their father had died correlated significantly with some characteristics i.e. Achievement *via* Conformity (Ac) and Psychological Mindedness (Py). Those whose father had died when they were young tended to be distractible, undependable, and resistant to rule and strict control (Ac), unconventional, intellectually shallow, and uncertain about his/her ability (Py). Finally, the present study formed fundamental data, which had never been studied before. Thus, any application or benefit would require a lot of further investigations.

The limitation of this study i.e. the subjects' status, are confined to medical students. Besides that, the determination of the middle-born position might have an effect among subjects who came from three, four, or five siblings.

REFERENCES

1. Gough HG. The California Psychological Inventory. In: Major psychological assessment instruments volume II. Newman CS editor. Massachusetts: Allyn and Bacon, 1980: 67-98.
2. Mellor S. How do only children differ from other children? J Genet Psychol 1990;151:220-30.
3. Byrd B, DeRosa AP, Craig SS. The adult who is an only child: achieving separation or individuation. Psychol Rep 1993;73:171-7.
4. Schultz NL. Leadership: Effects of birth order and education. Nurs Manage 1993;24:641-4.
5. Ishiyama FI, Munson PA, Chabassol DJ. Birth order and fear of success among midadolescents. Psychol Rep 1990;66:17-8.
6. Parker WD. Birth order effects in the academically talented. Gifted Child Quarterly 1998;42: 29-38.
7. Anderson M. Highly restricted fertility: very small families in the British fertility decline. Popul Stud 1998;52:177-99.
8. O'Neill BC, Scherbov S, Lutz W. The long-term effect of the timing of fertility decline on population size. Population and Development Review 1999; 25:749-836.

ลำดับการเกิดและบุคลิกภาพของนักศึกษา

ทินกร จันท์อบ, พ.บ.*, วุฒิชัย บุญยณฤธิ์, พ.บ.*,
มณี ภิญญพรพาณิชย์, พ.บ.*, สุธีร์ อินตะประเสริฐ, พ.บ.ม, สส.ม*,
ณททัย คັນธวงค์, พ.บ.*

วัตถุประสงค์ของการศึกษาค้นคว้า เพื่อหาความสัมพันธ์ระหว่างลำดับการเกิดของสมาชิกในครอบครัว (birth order) กับลักษณะทางบุคลิกภาพ

วัสดุและวิธีการศึกษา ศึกษาจากนักศึกษาแพทย์ชั้นปีที่ 1 ประจำปีการศึกษา 2544 ของคณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่ จำนวน 180 จากจำนวนทั้งสิ้น 186 คน โดยการตอบแบบสอบถามในเรื่อง ข้อมูลพื้นฐาน และการทำแบบทดสอบทางบุคลิกภาพ โดยใช้ California psychological inventory

ผลการศึกษา พบว่า โดยภาพรวมแล้ว ลำดับในการเกิดไม่มีความแตกต่างกัน แต่เมื่อเปรียบเทียบเป็นรายคู่แล้ว พบว่า นักศึกษาที่เป็นลูกคนเดียว และลูกคนเล็กมีปัจจัยของบุคลิกภาพทางบวกมากกว่านักศึกษาที่เป็นลูกคนโต และคนกลาง (คะแนนในมาตรา Cs และ Ai) นอกจากนี้ยังพบว่า นักศึกษาที่มาจากครอบครัวที่พ่อแม่เสียชีวิต แยกกันอยู่ หรือหย่าร้าง มีความแตกต่างกับนักศึกษาที่มีพ่อแม่อยู่ร่วมกันตามปกติ ได้มีการอภิปรายถึงผลที่สอดคล้องและแตกต่างกับการศึกษาจากแหล่งอื่นๆ

คำสำคัญ : ลำดับการเกิด , นักศึกษาแพทย์, บุคลิกภาพ

ทินกร จันท์อบ, วุฒิชัย บุญยณฤธิ์,
มณี ภิญญพรพาณิชย์, สุธีร์ อินตะประเสริฐ, ณททัย คັນธวงค์
จดหมายเหตุมหาวิทยาลัย ๔ 2545; 85: 97-101

* ภาควิชาจิตเวชศาสตร์, คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่, เชียงใหม่ 50200