

Personality and Social Adjustment of Medical Cadets, Phramongkutklo College of Medicine

Tassana Jaichumchuen BS, MS*, Sirinapa Jarmornmarn BS, MEd*,
Saovane Leelayoova PhD**, Mathirut Mungthin MD, PhD**

* Department of Psychology, Faculty of Social Sciences, Kasetsart University, Bangkok, Thailand

** Department of Parasitology, Phramongkutklo College of Medicine, Bangkok, Thailand

Objective: To determine personality and ability of social adjustment of medical cadets, Phramongkutklo College of Medicine. In addition, the factors influencing social adjustment in these medical cadets were evaluated.

Material and Method: The study population consisted of 45 medical cadets in their second year of a 6-year medical curriculum of Phramongkutklo College of Medicine. All study medical cadets gave written informed consent. The medical cadets completed a baseline assessment including a standardized questionnaire for general information and social adjustment. Personality traits were determined by a standard personality test, the 16 Personality Factor Questionnaire (16PF).

Results: The personalities of medical cadets were in between reserved and outgoing socially aware, concerns, shrewd and practical. The ability of social adjustment in these medical cadets was high. Social adjustment was significantly different between medical cadets who received different scholarships. Social adjustment of the medical cadets was positively correlated with personalities: factor C (emotionally stable), factor I (sensitivity), factor G (group conformity), factor H (social boldness), and factor Q3 (self-control), but negatively correlated with factor M (abstractedness), and factor Q2 (self-sufficiency).

Conclusion: This study presents the unique personalities of medical cadets. Social adjustment is significantly different between medical cadets with different source of scholarships. Longitudinal study of the influence of personality and social adjustment on academic performance needs to be performed.

Keywords: Academies and institutes, Military medicine, Personality, Schools medical, Social adjustment, Students medical

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Phramongkutklo College of Medicine, the only military medical school in Thailand where scholars are educated and inspired to become qualified medical doctors. In the beginning, all these doctors were funded by the Royal Thai Army to serve the armed forces after graduation. In order to increase the number of medical doctors in Thailand, Phramongkutklo College of Medicine has been funded by the Ministry of Public Health to produce more medical doctors. Thus, there are currently 2 sources of scholarships for our medical cadets *i.e.* the Royal Thai Army and the Ministry of Public Health. Both groups have been studying the same curriculum.

Correspondence to: Mungthin M, Department of Parasitology, Phramongkutklo College of Medicine, 315 Ratchawithi Rd., Ratchathawi, Bangkok 10400, Thailand.

Medical cadets have experienced several major changes in terms of learning process, learning environment and social status during the 6-year medical curriculum *i.e.* 1 pre-medical year, 2 pre-clinical years, 2 clinical years and 1 externship year. The first-year medical students, who are still civilians, study basic sciences at Kasetsart University. These students will be enrolled to become medical cadets of the Phramongkutklo College of Medicine if they pass all the subjects. These medical cadets will then study at Phramongkutklo College of Medicine until they graduate. During these five years, medical cadets live under the military rules and regulations which are supervised by the Student Affairs Division of Phramongkutklo College of Medicine. In the beginning of the second year, the curriculum emphasizes army

training. Then they experience an integrated medical curriculum until the end of the third year which combine pre-clinical knowledge of each organ system from different disciplines and also emphasize its clinical relevance. Learning methods are the combination of various techniques such as lectures, laboratory studying, problem-based learning, self-directed learning and field training. For the next 2 years, medical cadets will study clinical medicine from different departments in Phramongkutkiao Hospital. Supervised learning occurs at bedside, on ward rounds, in tutorials, student grand rounds and in clinics. Finally, medical cadets get the chance during the sixth-year externship to put into practice the theoretical knowledge they acquired in previous years. The uniqueness of Phramongkutkiao College of Medicine's curriculum is that military medicine has been integrated.

As the result, it is obvious that medical cadets face an emotionally demanding course of study and training. Stress of being medical cadets may come from academic pressure, perfectionist standards, demanding nature of medical practice, rules and regulations of the military institute. Several studies determined personality of medical students and identified that some personality traits may have an impact on the adjustment and/or academic performance⁽¹⁻⁶⁾. However, medical cadets may be under more pressure than civilian medical students. The impact of personality and ability of social adjustment on academic performance might be different. Thus, we aimed to determine the personality of medical cadets. In addition, the factors influencing social adjustment in these medical cadets were evaluated. This information will be the baseline for longitudinal study in medical cadets in terms of factors influencing academic performance.

Material and Method

The study protocol was reviewed and approved by the Institutional Ethical Committee of the Royal Thai Army Medical Department. This cross-sectional study was conducted in 2005. The study population consisted of 45 medical cadets in their second year of the 6-year medical curriculum of Phramongkutkiao College of Medicine. This study was conducted at the end of the first term of second year. All study medical cadets gave written informed consent. The medical cadets completed a baseline assessment including a standardized questionnaire for general information. Personality traits were determined by a

standard personality test, the 16 Personality Factor Questionnaire (16PF)⁽⁷⁾.

Rating-scale questionnaire for social adjustment has been built up based on aims, rules and regulations of Phramongkutkiao College of Medicine in order to determine feeling towards changes and also needs of medical cadets. This test covers 5 aspects including social norm, social skill, family relationships, institutional relationships and community relationships. Validity and reliability of the test was approved.

Data were analyzed using statistical package SPSS for Windows version 11.5. Relationships between social adjustment and personality traits were analyzed by Pearson's product moment correlation coefficient. Differences of mean social adjustment score in different groups were analyzed by independent t-test.

Results

Of forty-five medical cadets, 20 (44.4%) were male and 25 (55.6%) were female with the mean age of 20.13 year. Approximately 70% originated from Bangkok. All medical cadets received scholarships throughout their studies here. Approximately one-fourth were funded by the Royal Thai Army. The rest were funded by the Ministry of Public Health.

Fig. 1 shows personality characteristics of 45 medical cadets. The personalities of medical cadets were, in between reserved and outgoing, socially aware, concerned, shrewd and practical. The ability of social adjustment in these medical cadets was high. Social adjustment was significantly higher in the medical cadets who received scholarships from The Ministry of Public Health compared to those who got The Royal Thai Army's scholarships (Independent t-test, $p = 0.043$) (Table 1). Using Pearson's product moment correlation coefficient, social adjustment of the medical cadets was positively correlated with factor C (emotionally stable) ($r = 0.398$, $p = 0.007$), factor I (tough and tender minded) ($r = 0.500$, $p < 0.001$), factor G (group conformity) ($r = 0.398$, $p = 0.007$), factor H (social boldness) ($r = 0.588$, $p < 0.001$), and factor Q3 (self-control) ($r = 0.636$, $p < 0.001$). While, social adjustment of these medical cadets was negatively correlated with factor M (abstractedness) ($r = -0.325$, $p = 0.029$), factor Q2 (self-sufficiency) ($r = -0.569$, $p < 0.001$).

Discussion

Not only cognitive abilities but also personality traits influence medical students' academic

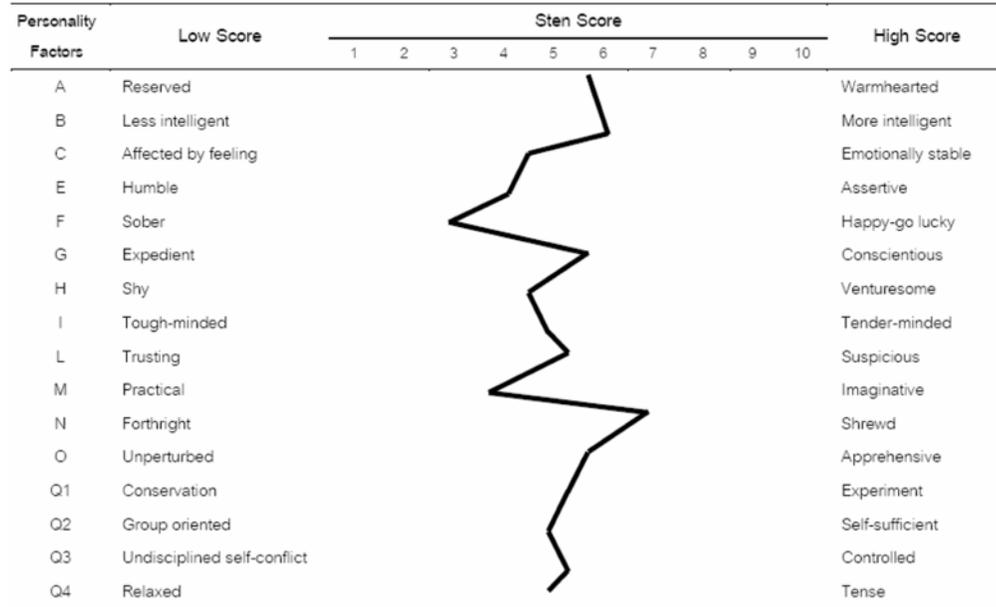


Fig. 1 Personality characteristics of medical cadets

Table 1. The ability of social adjustment of the medical cadets

Variables	n	\bar{x}	SD	df	t	p-value
Gender						
Male	20	181.3	13.6	43.0	-1.571	0.137
Female	25	187.9	15.4			
Origin						
Bangkok	31	184.6	14.9	43.0	-0.206	0.838
Others	14	185.6	15.3			
Scholarship						
The Royal Thai Army	11	178.5	9.8	27.8	-2.122*	0.043
The Ministry of Public Health	34	187.0	15.7			
Total	45	184.9	14.9			

performance^(1,2). It has been identified that specific personality traits can predict academic performance of medical students⁽³⁻⁶⁾. A few studies showed that the personality domain of conscientiousness was positively related with the performance of medical students especially preclinical years⁽⁴⁻⁵⁾. This finding was similar to the report of Chamorro-Premuzic & Furnham (2003)⁽⁶⁾. In addition, they also showed that neuroticism might impair academic performance. Using 16PF Questionnaire, Peng and colleague (1995) showed that being enthusiastic, venturesome, self-opinionated, imaginative, experimenting, resourceful and driven was positively correlated with performance. On the other

hand, being self-assured had negative correlation⁽³⁾. The present study presents the unique personalities of the second-year medical cadets, Phramongkutkloa College of Medicine which were, in between reserved and outgoing socially aware, concerns, shrewd and practical. This finding should be influenced by adaptation to the new environment since they had just become medical cadets. These medical cadets had to adapt themselves into military rules and regulations of which, seniority system was the one of the main contexts. According to the previous report by Peng and colleague (1995), medical cadets' personality was rather different from those reported with academic

success. However, a longitudinal study of the personality influencing on academic performance in medical cadets has to be performed.

Overall social adjustment ability in medical cadets was high. The high social adjustment in these students might be the result of new environment and also medical curriculum itself. Their status changed from civilian into medical cadets behaving under the military rules and regulations. Studying the pre-clinical subjects in the second year, which were integrated and required learning skills of many techniques such as self-directed learning and problem-based learning, was rather different from the first-year subjects which were mainly subject-based and classroom-based lecturing. This ability was not a significant difference between different gender and origins. However, the social adjustment was significantly higher in the medical cadets who received the Ministry of Public Health's scholarships. These medical cadets were allocated to the scholarships since the beginning of the first year. Those who received the Royal Thai Army's scholarships will serve the Army after graduation. In contrast, the other group still did not know where to work in the Ministry of Public Health. The uncertainty of their career after graduation might influence their ability for social adjustment. Selection for each scholarship might be another factor for this difference. The candidates who wanted to be the Royal Thai Army's scholar had to pass the physical fitness tests. Since these candidates intended to be the Royal Thai Army's scholar, they have accepted and were capable of being in the army training. Thus, the Ministry of Public Health's scholar showed higher social adjustment for the same environment. Introduction of medical cadets' rules and regulations and preparation of these scholars in the first year for the mental and physical aspects might increase the ability for social adjustment.

Several personality factors were correlated with social adjustment in these medical cadets. Those who were emotionally stable, tender-minded, conscientious, venturesome, self-control, practical and group-oriented had a higher ability for social

adjustment. These second-year medical cadets had only been under the military rules and regulations. Thus, to succeed in the new environment, these particular personalities were useful for the medical cadets to adjust themselves and fit in.

In conclusion, these medical cadets had unique personalities. Social adjustment is significantly different between medical cadets with different sources of scholarships. A longitudinal study of the influence of personality and social adjustment on academic performance needs to be performed.

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บุคลิกภาพและการปรับตัวของนักเรียนแพทย์ทหาร วิทยาลัยแพทยศาสตร์พระมงกุฎเกล้า

ทรศนะ ใจชุ่มชื่น, ศิริรักษา จามรมาน, เสาวนีย์ ลิละยวະ, มหิรุทธ มุ่งถิ่น

วัตถุประสงค์: เพื่อศึกษาลักษณะบุคลิกภาพและการปรับตัวทางสังคมของนักเรียนแพทย์ทหาร วิทยาลัยแพทยศาสตร์พระมงกุฎเกล้า และหาปัจจัยที่มีผลต่อการปรับตัวของนักเรียนแพทย์ทหาร

วัตถุประสงค์และวิธีการ: การศึกษาครั้งนี้ทำการศึกษาเกี่ยวกับนักเรียนแพทย์ทหาร ชั้นปีที่ 2 จำนวน 45 คน นักเรียนแพทย์ทหารทุกคนได้ให้คำยินยอมในการทำวิจัยครั้งนี้ นักเรียนแพทย์ทหารกรอกแบบสอบถามข้อมูลทั่วไป แบบสอบถามการปรับตัวทางสังคม และแบบทดสอบบุคลิกภาพมาตรฐาน 16 Personality Factors questionnaire (16 PF)

ผลการศึกษา: นักเรียนแพทย์ทหารมีลักษณะบุคลิกภาพ ไม่ชอบการแสดงตัว จริงจัง มีความรับผิดชอบต่อสังคม สุขุม และชอบทำในสิ่งที่เป็นไปได้ พบว่านักเรียนแพทย์ทหารมีการปรับตัวทางสังคมในระดับสูง การปรับตัวมีความแตกต่างกันในนักเรียนแพทย์ทหารที่ได้รับทุนต่างกันอย่างมีนัยสำคัญทางสถิติ การปรับตัวทางสังคมของนักเรียนแพทย์ทหารมีความสัมพันธ์ทางบวกกับบุคลิกภาพ องค์ประกอบ C ความมั่นคงทางอารมณ์ องค์ประกอบ I ความเข้มแข็งทางจิตใจ องค์ประกอบ G มโนธรรม องค์ประกอบ H ความกล้าเผชิญ และ องค์ประกอบ Q3 การควบคุมตนเอง และมีความสัมพันธ์ทางลบกับบุคลิกภาพ องค์ประกอบ M การจินตนาการ และองค์ประกอบ Q2 การยึดมั่นในตนเอง

สรุป: การศึกษานี้พบว่าบุคลิกภาพของนักเรียนแพทย์ทหารมีลักษณะเฉพาะ การปรับตัวมีความแตกต่างกันในนักเรียนแพทย์ทหารที่ได้รับทุนต่างกันอย่างมีนัยสำคัญทางสถิติ การศึกษาผลของบุคลิกภาพและการปรับตัวทางสังคมในระยะยาวต่อผลการเรียนควรที่จะได้ดำเนินการต่อไป
