

ORIGINAL ARTICLE

ALTRUISTIC BEHAVIOUR AMONG MEDICAL STUDENTS: A COMPARATIVE CROSS-SECTIONAL STUDY.

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Abstract

Introduction: Altruism or selflessness is an act of kindness to other people's well-being. This is of significant value of medical practice over the years. Increasingly heavy workload over the years can have an impact on the selfless behaviour of medical students. This research project aims to determine the magnitude of altruistic behaviour and to compare this behaviour between year one and year five medical students of Universiti Kuala Lumpur Royal College Medicine Perak (UniKL RCMP).

Materials and Methods: This cross-sectional study was conducted by distributing a set of questionnaire based on Altruism Personality Scale (APS) to year one and year five respondents either by face to face or on-line using a Google Form. The questionnaire includes an element to measure the degree of altruistic personality in students and questions on possible factors affecting that behavior. A total of 207 students participated in the study.

Results: It was found that 92 (44.4) % of respondents possessed altruistic personality out of which 56 (41.2%) were from year one and 36 (50.7%) were from year five. Male respondents had a much higher altruistic personality i.e. 52.9% versus 43.3% female respondents, ($p < 0.05$). The percentage of respondents who were more involved in volunteer activities with more selfless behaviour was 57.9% compared to 41.0% of respondents who were less involved ($p < 0.05$). There was no significant association between the altruistic personality and respondents' hometown and their parent's level of education.

Conclusion: In this study, altruistic personality is greater among older students than younger medical students. It was found that students who participated more in volunteer activities, especially male students, had a higher selfless personality than less active and female students. Parents' education level and hometown had no association with altruistic personality in this study.

Introduction

Altruism is the belief that the welfare of others is more important than the wellbeing or survival of the self. Selfless people practice selfless acts not for their own benefit; they have no ulterior motives, like the desire for recognition or reward. (1). This is a traditional value in many cultures, and central to various religious teachings (2). It is characterized by selflessness and concern for the wellbeing of others (3). Those who possess this quality generally put others first and really care for the people around them, whether they have a personal connection with them or not (4). The examples of altruistic acts are giving home care for the elderly, helping poor people, rescuing people in danger or in disaster situation etc. (5). Previous research has shown that as the students progress in medical schools, their altruistic behavior becomes less common (6). Students who face increasingly heavy workloads, deal with the demands of the patients and institutional policies may develop emotional suppression and burnout. Therefore, this study is intended to see the difference in altruistic behaviour between the first year (beginner and newcomer) and the fifth year of medical students (soon to graduate). We want to see the difference in the extent of altruism at different levels of medical education among medical students at the Royal Perak College of Medicine (RCMP). This will indirectly reflect the effect of our university's professional development program on students. We are also interested to know whether there are any other factors associated with this altruistic personality. The findings of the study may help the institution to take necessary steps to address the issue.

Materials and Methods

Study design and sample of population

This is a cross-sectional study among first year (preclinical) and fifth year (clinical) students at the Royal College of Medicine Perak (RCMP), University Kuala Lumpur (UniKL). All students (282) were invited to participate in the study, but only 207 participants (136 from year 1 and 71

from year 5) gave their consent to be part of this study.

Data collection and analysis

Data was collected using a questionnaire through face to face or online using google form. The questionnaire contained the sociodemography of the respondents, Altruism Personality Scale (APS) adapted from Rushton et al (1981) (7) for measuring the degree of the altruistic personality in students and factors associated with altruistic behaviour. The Altruistic Personality Scale has 20 elements on student involvement in certain common altruistic behaviours. The APS has been validated and used by a wide range of researchers around the world (8). Factors that influence altruism, such as parental influence, peer influence, volunteer involvement and role models in medical schools, were included in the questionnaire.

The data gathered was analysed using the IBM SPSS Statistics 23 version. The socio-demographic profiles of the respondents were compiled and the association among the variables was tested using the Chi square. $P < 0.05$ was deemed significant.

Ethical consideration

The survey was approved by the Institutional Ethics Committee of RCMP.

Results

Sociodemographic profiles of the Respondents

a. Gender distribution

Out of a total of 282 students of Year 1 and Year 5, 207 participated in the study, giving the response rate of 73.4% (90.7% in year one and 53.8% in year 5). Among the 207, 136 (65.7%) were first-year students and 71 (34.3%) were fifth-year students. The response rate was marginally low in the fifth year due to logistical reasons, such as limited on-line accessibility and time constraints (clinical load). Female students 152 (74.9%) were more predominant than male

students 51 (25.1%) but it was proportionate to the number of females in both years.

b. Hometown

The majority of students came from the city (48 per cent), including 50.8 per cent of first-year students and 43.7 per cent of five-year-old students.

c. Parents Education Level

As shown in table 1, most of the parents of respondents have a higher education level (diploma or higher), 70% of fathers of year one students and 66.2% of year 5 students whilst 62.7% of mother of year one and 63.4% of year 5.

Participant's involvement in altruistic activities

Frequent or active involvement in altruistic activities were found among 58 (42.6%) of year one students and 34 (47.9%) among year 5 students (table 2).

Altruistic Personality

Altruistic score was not normally distributed. Thus, we used median score (52) instead of the mean score (53.6) as the threshold. The altruistic personality score above the median (52) considered to be altruistic and below the median (< 52) was not altruistic (Figure 1).

a. Prevalence of altruistic personality among students

It was found that 92 (44.4) % of respondents were having altruistic personality of which 56 (41.2%) were year one students and 36 (50.7%) from year five.

b. Altruistic personality by gender

Table 3 shows a significant difference between the prevalence of altruistic personality in males and females. Males (51.0%) were more altruist than females (42.1%). There were 53.3.0 % of year 1 male respondents who were found altruistic whilst 40.0% females were altruistic. In

year 5, 50% of male students behaved altruistically, compared to 51% of female students.

c. Altruistic personality by hometown

Year 1 respondents who lived in the city had highest altruistic personality (51.9%) compared to students who lived in small towns 40.3% and villages 47.2%. However, the difference was not significant. ($p>0.05$).

d. Altruistic personality by parents' education

Although the highest percentage of parent's education was among the diploma holders, there was no significant association between parental education and altruistic behavior.

e. Altruistic personality by involvement in altruistic activity

Among the year 1 and year 5 respondents, the individual who had higher past involvement in altruistic activities showed the highest altruistic personality which was 50.7% and 62.2% respectively. Students with frequent past involvement found to be the more altruistic. It also showed that senior students (year 5) with that higher past involvement (including activities from the college program) had higher altruistic personality score. Whether the score increased by the year of study was not a tested in this study.

Correlations of Altruistic score and past involvements in altruistic activities.

There was a positive and significant correlation between altruistic score and frequency of past involvement in altruistic activities as shown in Figure 2.

Discussion

In the study, 44.4% of students were found to have an altruistic personality. An almost similar result was observed in a cross-sectional study of a sample of 224 students in India, using a

validated altruistic personality scale that altruistic behaviour was found among 43.3% of the students. (9) This study also found that behaviour was more common in males, which is similar to what we found. In our study, students who were more involved in volunteering activities having a more altruistic behavior, 57.9% compared to respondents who were less involved 41.0%, $p < 0.05$. There was no significant relationship between altruistic personality and parental education. The two studies share a common conclusion that a supportive environment should be created within medical schools to foster altruistic tendencies through organized activities.

The results of this study for altruistic personality throughout the course of medicine contradict those of earlier studies (4, 8, 10). Previous studies have shown that the altruistic personality of medical students decreased throughout the medical course which was completely different from the study conducted on medical students of UniKL RCMP. The altruistic personality among RCMP was increased as their maturity increased. Some previous studies have shown that the qualities of empathy and altruistic tendencies seem to decline in some medical students as they progress through their education. The reason given was that during the academic upgrading process, students face increasing workloads and face rigorous program requirements. This results in emotional suppression, patient rejection and burn-out. In our study the increased in altruistic behaviour probably because medical students of UniKL RCMP were feeling less pressured in studying medicine as the study environment was very conducive and the lecturers were very helpful. The RCMP medical program which supported and recognized the volunteering activities by awarding continuous professional development (CPD) points called GHOC has encouraged students to be involved in humanitarian efforts and social enhancement. Altruistic personality

development has been shown to occur through frequent participation and experience in social skills training (11, 12, 13). This was confirmed by our observation that frequent involvement in past social activities has increased their social competence and altruism (14). This was greater for male students. Gender (male) and past participation in social activities are predictors of altruistic behaviours among RCMP medical students. Future studies should examine the involvement and modelling of parents in the development of altruistic behaviour from an early age, since past commitments include the lifetime experience of students since their birth.

This study was carried out at a private medical university, so the result cannot be generalized to all medical students at other institutions. A multi - center study involving both private and public universities should be carried out to improve generalizability and a comparison can be made between private and public university students.

Conclusion

In this study, the altruistic personality is higher in older students than in younger medical students. It was also found that students who participated more in volunteer activities, especially male students, had a higher selfless personality than less active students and female students. Parents' educational attainment and their hometown were not associated with altruistic personality in this study.

Table 1. Socio-demographic profile of the respondents

		Year 1 (n=136)		Year 5 (n=71)		Total	
Variable s	Category	Frequency	(%)	Frequency	(%)	Frequency	(%)
Gender	Male	31	23.5	20	28.2	51	25.1
	Female	101	76.5	51	71.8	152	74.9
Hometo wn	Village	38	28.8	17	23.9	55	27.0
	Town	67	50.8	31	43.7	98	48.0
	City	28	21.2	23	32.4	51	25.0
Father's educatio nal level	PhD	5	3.7	1	1.4	6	2.9
	Master	22	16.4	9	12.7	31	15.0
	Degree	59	44.0	22	31.0	81	39.1
	Diploma	19	14.2	15	21.1	34	16.4
	SPM	26	19.4	18	25.4	44	21.5
Mother's educatio nal level	PhD	1	0.7	2	2.8	3	1.5
	Master	23	17.2	4	5.6	27	13.2
	Degree	55	41.0	28	39.4	83	40.5
	Diploma	15	11.2	11	15.5	26	12.7
	SPM	34	25.4	22	31.0	56	27.3

Table 2. Participant's involvement in altruistic activities

		Year 1 (n=136)		Year 5 (n=71)		Total	
Variable s	Category	Frequency	(%)	Frequency	(%)	Frequency	(%)
Involvement in altruistic activities	Frequent	58	42.6	34	47.9	92	44.4
	Not frequent	78	57.4	37	52.1	115	55.6
	Total	136	100.0	71	100.0	207	100.0

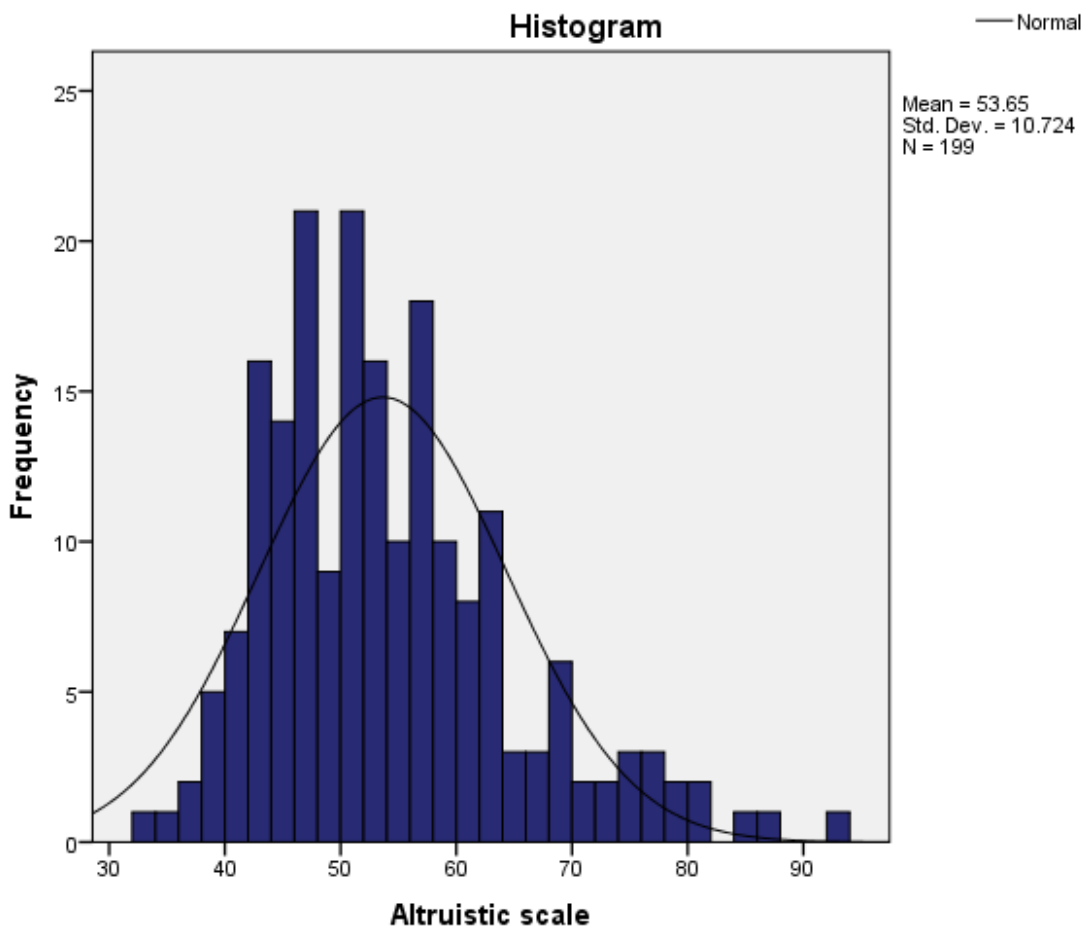


Figure 1. Histogram of the altruistic score

Table 3. Altruistic personality and its relationship with sociodemographic and related factors

		Year 1 (n=136)			Year 5 (n=71)			Total			
Variables	Category	n	Altruistic personality	(%)	n	Altruistic personality	(%)	n	Altruistic personality	(%)	Significance**
Gender	Male	31	17	53.3	20	10	50.0	51	26	51.0	S
	Female	101	40	40.0	51	26	51.0	152	64	42.1	
Home-town	Village	38	18	47.2	17	10	58.8	55	28	50.9	NS
	Township	67	27	40.3	31	12	38.7	98	39	39.8	
	City	28	14	51.9	23	14	60.9	51	23	45.1	
Father's educational level	PhD	5	1	20.0	1	0	0	6	1	16.7	NS
	Master	22	6	27.3	9	6	66.7	31	12	38.7	
	Degree	59	26	45.6	22	13	59.1	81	39	48.1	
	Diploma	19	10	52.6	15	6	40.0	34	16	47.1	
	SPM	26	10	38.5	18	8	44.4	44	18	40.9	
Mother's educational level	PhD	1	0	0	2	1	50.0	3	1	33.3	NS
	Master	23	8	34.8	4	1	25.0	27	9	34.6	
	Degree	55	22	40.6	28	16	57.1	83	38	48.1	
	Diploma	15	5	33.3	11	8	72.7	26	13	50.0	
	SPM	34	15	44.1	22	9	40.9	56	24	45.3	

**Significant when $p < 0.05$

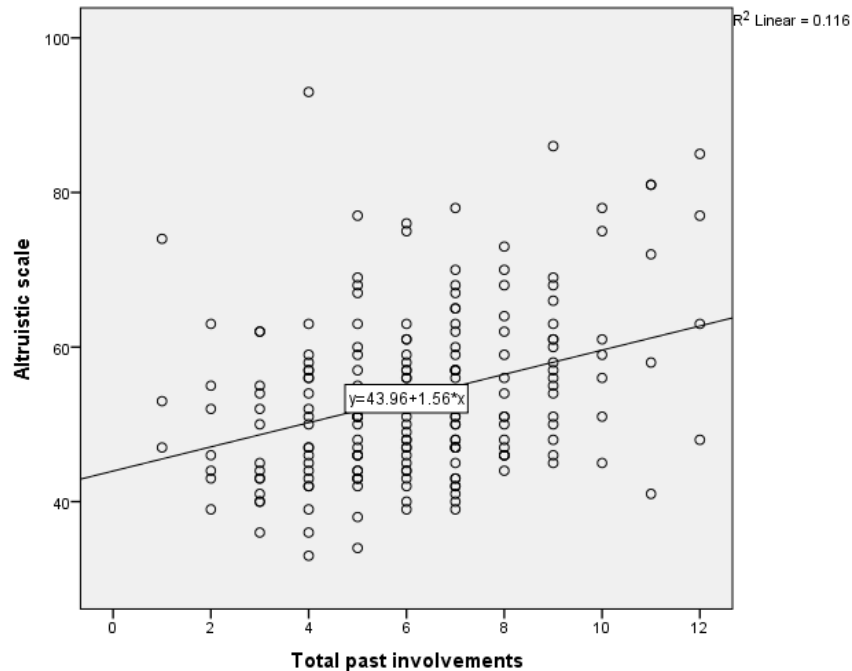


Figure 2. Correlations of altruistic scale and past involvements

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