

**Medical Students' Motivations for Studying Medicine:
Changes and Relationship with Altruistic Attitudes,
Expectations, and Experiences of Learning at University**

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TABLE OF CONTENTS

TABLE OF CONTENTS	ii
LIST OF TABLES	vii
LIST OF FIGURES	xi
ABBREVIATIONS	xiii
CONFERENCE PRESENTATIONS ARISING OUT OF THIS THESIS	xiv
ABSTRACT	xv
THESIS DECLARATION	xvii
ACKNOWLEDGEMENT	xviii
CHAPTER 1. INTRODUCTION.....	1
1.1 Background.....	1
1.2 Research aim, questions, and objectives.....	2
1.3 Thesis outline.....	4
CHAPTER 2. LITERATURE REVIEW	6
2.1 Introduction.....	7
2.2 Methods	7
2.3 Theories for understanding medical students' motivations	8
2.3.1 Andragogy	9
2.3.2 Social Cognitive Theory.....	10
2.3.3 Self-Determination Theory.....	11
2.4 Medical students' motivations.....	13
2.4.1 Motivations for studying medicine and/or a medical career	13
2.4.2 Academic motivation	30
2.4.3 Achievement motivation	35
2.4.4 Motivations for undertaking study/learning	38
2.4.5 Other motivations at medical school	43
2.5 Medical students' medical professionalism.....	44
2.5.1 Altruism and medicine	44
2.5.2 Altruism and medical professionalism	46
2.5.3 Measuring medical professionalism.....	49
2.5.4 The impact of medical training on medical professionalism	51
2.5.5 Changes in medical professionalism at medical school	57
2.6 Learning transitions at medical school	58

2.6.1	Transition from secondary school to medical schools	59
2.6.2	Transition from preclinical training to clinical training	60
2.7	Summary	61
CHAPTER 3. METHODS		63
3.1	Introduction.....	64
3.2	Study setting	64
3.3	The study design	65
3.4	Participants and procedure.....	68
3.4.1	The entry baseline questionnaire	68
3.4.2	The entry follow-up questionnaire	69
3.4.3	The fourth-year baseline questionnaire	71
3.4.4	The fourth-year follow-up questionnaire	72
3.5	Questionnaire	73
3.5.1	Questionnaire design	73
3.5.2	Piloting the basic questionnaire.....	78
3.5.3	Modification of questionnaire for each survey.....	79
3.6	Statistical analysis.....	81
3.6.1	Baseline responses analysis.....	81
3.6.2	Follow-up responses analysis	84
3.6.3	Comparison between baseline and follow-up responses	85
3.6.4	Power analysis	86
3.7	Summary	88
CHAPTER 4. REASONS FOR STUDYING MEDICINE		89
4.1	Introduction.....	90
4.2	Baseline responses	90
4.2.1	Descriptive information.....	90
4.2.2	Factors of reasons for studying medicine and scores for each factor.....	98
4.2.3	Associations between scores for factors of reasons for studying medicine and socio-demographic characteristics.....	101
4.3	Follow-up responses	114
4.3.1	Descriptive information.....	114
4.3.2	Scores for the four factors of reasons for studying	124
4.4	Comparison between baseline and follow-up responses	125

4.4.1	Change in reasons for studying medicine after the first year at medical school	125
4.4.2	Change in reasons for studying medicine after the fourth year at medical school	134
4.5	Classification of participants with paired baseline and follow-up responses	143
4.5.1	Medical applicants.....	143
4.5.2	Fourth year medical students.....	146
4.6	Summary.....	149
CHAPTER 5. ALTRUISTIC ATTITUDES		150
5.1	Introduction.....	151
5.2	Baseline responses	151
5.2.1	Descriptive information.....	151
5.2.2	Associations between altruistic attitude score and socio-demographic characteristics	151
5.2.3	Relationships between altruistic attitude score and scores for factors of reasons for studying medicine	155
5.3	Follow-up responses	156
5.3.1	Descriptive information.....	156
5.3.2	Relationships between altruistic attitude score and scores for factors of reasons for studying medicine	156
5.4	Comparison between baseline and follow-up responses	157
5.4.1	Change in altruistic attitudes after the first year at medical school.....	157
5.4.2	Change in altruistic attitudes after the fourth year at medical school	159
5.5	Summary.....	161
CHAPTER 6. EXPECTATIONS AND EXPERIENCES OF LEARNING AT UNIVERSITY		162
6.1	Introduction.....	163
6.2	Baseline responses	163
6.2.1	Descriptive information.....	163
6.2.2	Associations between expectations/experiences of learning at university and socio-demographic characteristics.....	167
6.2.3	Relationships between expectations/experiences of learning at university and scores for factors of reasons for studying medicine	172
6.3	Follow-up responses	176

6.3.1	Descriptive information.....	176
6.3.2	Relationships between experiences of learning at university and scores for factors of reasons for studying medicine.....	180
6.4	Comparison between baseline and follow-up responses	184
6.4.1	Differences between expectations and experiences of learning at university after the first year at medical school	184
6.4.2	Changes in experiences of learning at university after the fourth year at medical school.....	199
6.5	Summary.....	213
CHAPTER 7. DISCUSSION		215
7.1	Introduction.....	216
7.2	How do the study findings answer the research questions?	216
7.3	What are the possible explanations for the observed patterns?	219
7.3.1	Transition to the university learning environment	221
7.3.2	Curriculum design	224
7.3.3	Professional socialisation	227
7.4	Do socio-demographic characteristics matter?.....	229
7.5	Strengths and limitations	232
7.5.1	Strengths.....	232
7.5.2	Limitations.....	234
7.6	Future research.....	236
7.7	Implications	237
7.7.1	Medical school selection	238
7.7.2	Medical school curriculum.....	240
7.8	Summary.....	243
REFERENCES		245
APPENDICES.....		260
Appendix 1 Summary of tools used for measuring other motivations at medical school		264
Appendix 2 Entry baseline questionnaire.....		269
Appendix 3 Fourth-year baseline questionnaire.....		279
Appendix 4 Entry follow-up questionnaire.....		289
Appendix 5 Fourth-year follow-up questionnaire		297
Appendix 6 University of Adelaide Human Research Ethics Committee approval		305

Appendix 7 Medical program Curriculum Committee Approval	308
Appendix 8 Pilot study package	310
Appendix 9 Bivariate analysis of the associations between medical applicants’ expectations of learning at university and socio-demographic characteristics	319
Appendix 10 Bivariate analysis of the associations between fourth year medical students’ experiences of learning at university and socio-demographic characteristics	330

LIST OF TABLES

Table 1 Summary of tools used for measuring medical students' motivations for studying medicine and/or a medical career	15
Table 2 Summary of tools used for measuring medical students' academic motivations	31
Table 3 Summary of tools used for measuring medical students' achievement motivation.....	36
Table 4 Summary of tools used for measuring medical students' motivations for undertaking study/learning	39
Table 5 Definitions of medical professionalism provided by leading organisations and scholars	47
Table 6 Number of applicants and proportion of previous application stage, 2004–2007	65
Table 7 Socio-demographic characteristics included into the questionnaires.....	74
Table 8 Items regarding reasons for studying medicine.....	75
Table 9 Summary of the modifications of items on altruistic attitudes.....	76
Table 10 Items regarding expectations/experiences of learning at university	77
Table 11 Summary of modifications of four questionnaires based on the basic questionnaire	80
Table 12 Summary of baseline responses analysis	83
Table 13 Summary of follow-up responses analysis.....	84
Table 14 Summary of comparison between baseline and follow-up responses.....	86
Table 15 Summary of socio-demographic characteristics of medical applicants (n = 411)	91
Table 16 Summary of socio-demographic characteristics of 2012 fourth year medical students (n = 102).....	95
Table 17 Factor analysis of the 14 items regarding reasons for studying medicine.....	99
Table 18 Bivariate analysis of the associations between medical applicants' scores for the four factors of reasons for studying medicine and socio-demographic characteristics (n=411)	102

Table 19 Multivariable analysis of the association between medical applicants' scores for the four factors of reasons for studying medicine and socio-demographic characteristics (n = 403 ^a)	107
Table 20 Bivariate analysis of the associations between fourth year medical students' scores for the four factors of reasons for studying medicine and demographic characteristics (n=102)	109
Table 21 Multivariable analysis of the associations between fourth year medical students' scores for the four factors of reasons for studying medicine and socio-demographic characteristics (n = 102)	113
Table 22 Summary of socio-demographic characteristics of second year medical students whose responses can be paired with a baseline response from the entry baseline questionnaire (n = 48).....	118
Table 23 Summary of socio-demographic characteristics of fifth year medical students whose responses can be paired with a baseline response from the fourth-year baseline questionnaire (n = 32).....	123
Table 24 Comparison of medical applicants' and second year medical students' reasons for studying medicine	128
Table 25 Paired comparison of reasons for studying medicine before and after the first year at medical school (n = 48, paired)	131
Table 26 Comparison of medical applicants' scores for the four factors of reasons for studying medicine before and after the first year at medical school (n = 48, paired) ...	133
Table 27 Comparison of fourth year medical students' and fifth year medical students' reasons for studying medicine	137
Table 28 Paired comparison of reasons for studying medicine before and after the fourth year at medical school (n = 32, paired)	140
Table 29 Comparison of fourth year medical students' scores for the four factors of reasons for studying medicine before and after the fourth year at medical school (n = 32, paired).....	142
Table 30 Calinski and Harabasz pseudo-F index ((n = 48, paired)).....	144
Table 31 Calinski and Harabasz pseudo-F index (n = 32, paired)	147
Table 32 Bivariate analysis of the associations between medical applicants' altruistic attitude score and socio-demographic characteristics (n=411)	152
Table 33 Bivariate analysis of the associations between fourth year medical students' altruistic attitude score and socio-demographic characteristics (n=102)	154
Table 34 Correlations between medical applicants' and fourth year medical students' altruistic attitude score and scores for the four factors of reasons for studying medicine	155

Table 35 Correlations between second year medical students' altruistic attitude score and scores for the four factors of reasons for studying medicine.....	156
Table 36 Summary of participants' altruistic attitude scores in the four questionnaires	157
Table 37 Paired comparison of altruistic attitudes before and after the first year at medical school within groups of medical applicants.....	158
Table 38 Paired comparison of altruistic attitudes before and after the fourth year at medical school within groups of medical applicants.....	160
Table 39 Summary of differences in medical applicants' expectations of learning at university by socio-demographic characteristics (n = 411).....	167
Table 40 Summary of differences in fourth year medical students' experiences of learning at university by socio-demographic characteristics (n = 102).....	170
Table 41 Summary of correlations between expectations of studying at university and the factors of reasons for studying medicine among medical applicants (n = 411)	173
Table 42 Summary of correlations between experiences of studying at university and the factors of reasons for studying medicine among fourth year medical students (n = 102).....	175
Table 43 Summary of correlations between experiences of studying at university and the factors of reasons for studying medicine among second year medical students (n = 94).....	181
Table 44 Summary of correlations between experiences of studying at university and the factors of reasons for studying medicine among fifth year medical students (n = 90)	183
Table 45 Comparison of medical applicants' and second year medical students' expectations and experiences of learning at university	187
Table 46 Paired comparison of expectations and experiences of learning at university before and after the first year at medical school (n = 48, paired).....	188
Table 47 Summary of medical applicants and second year medical students' expected/reported time spent on independent/private study	190
Table 48 Paired comparison of expectations and experiences of learning at university before and after the first year at medical school within the LE group (n = 25, paired)	193
Table 49 Paired comparison of expectations and experiences of learning at university before and after the first year at medical school within the vLE group (n = 12, paired)	195
Table 50 Paired comparison of expectations and experiences of learning at university before and after the first year at medical school within the LJvLE group (n = 11, paired)	197

Table 51 Comparison of fourth year medical students' and fifth year medical students' experiences of learning at university	202
Table 52 Paired comparison of experiences of learning at university before and after the fourth year at medical school (n = 32, paired)	203
Table 53 Summary of fourth and fifth year medical students' reported time spent on independent/private study.....	205
Table 54 Paired comparison of experiences of learning at university before and after the fourth year at medical school within the HJ group (N = 5, paired).....	207
Table 55 Paired comparison of experiences of learning at university before and after the fourth year at medical school within the oH group (N = 10, paired)	209
Table 56 Paired comparison of experiences of learning at university before and after the fourth year at medical school within the LE group (N = 17, paired)	211
Table 57 Summary of possible explanations for changes and non-changes in medical students' motivations for studying medicine, altruistic attitudes, and expectations/experiences of learning at university	220

LIST OF FIGURES

Figure 1 Thesis outline	5
Figure 2 The spectrum of motivation according to SDT.....	11
Figure 3 The study design	67
Figure 4 The planned timing of the four questionnaires in the medical program	67
Figure 5 The procedure of proceeding from application to the second year at the University of Adelaide medical program	70
Figure 6 The procedure of proceeding from the fourth year to the fifth year at the University of Adelaide medical program	72
Figure 7 Summary of medical applicants' ratings of the importance of their reasons for applying to study medicine (n = 411).....	93
Figure 8 Summary of fourth year medical students' ratings of the importance of their reasons for studying medicine (n = 102).....	97
Figure 9 Summary of second year medical students' ratings of the importance of their reasons for studying medicine (n = 94).....	115
Figure 10 Demonstration of the pairing between responses from entry baseline and entry follow-up questionnaire	117
Figure 11 Summary of fifth year medical students' ratings of the importance of their reasons for studying medicine (n = 90).....	120
Figure 12 Demonstration of the pairing between responses from fourth-year baseline and fourth-year follow-up responses	122
Figure 13 Comparison of medical applicants' (n = 411) and second year medical students' (n = 94) reasons for studying medicine.....	126
Figure 14 Comparison of fourth year medical student' (n = 102) and fifth year medical students' (n = 90) reasons for studying medicine.....	135
Figure 15 Dendrogram for hierarchical cluster analysis of the applicants with paired baseline and follow-up responses (n = 48, paired).....	143
Figure 16 Medical applicants' mean scores for the factors of reasons for studying medicine (n = 48, paired)	145
Figure 17 Dendrogram for hierarchical cluster analysis of the fourth-year medical students with paired baseline and follow-up responses (n = 32, paired).....	146
Figure 18 Fourth year medical students' mean scores for the factors of reasons for studying medicine (n = 32, paired).....	148

Figure 19 Summary of medical applicants' ratings for their agreement with the items regarding their expectations of learning at university (n = 411)	164
Figure 20 Summary of fourth year medical students' ratings for their agreement with the items regarding their experiences of learning at university (n = 102).....	166
Figure 21 Summary of second year medical students' ratings for their agreement with the items regarding their experiences of learning at university (n = 94).....	177
Figure 22 Summary of fifth year medical students' ratings for their agreement with the items regarding their experiences of learning at university (n = 90).....	179
Figure 23 Comparison of medical applicants' (n = 411) expectations and second year medical students' (n = 94) experiences of learning at university	185
Figure 24 Comparison of fourth year medical students' (n = 102) and fifth year medical students' (n = 90) experiences of learning at university	200

ABBREVIATIONS

SCT	Social Cognitive Theory
SDT	Self-Determination Theory
UK	United Kingdom
GPA	Grade Point Average
SATAC	South Australia Tertiary Admission Centre
ATAR	Australian Tertiary Admission Rank
UMAT	Undergraduate Medicine and Health Sciences Admission Test
UoA	University of Adelaide
CBL	Case-Based Learning
PBL	Problem-Based Learning
MPPD	Medical Personal and Professional Development

CONFERENCE PRESENTATIONS ARISING OUT OF THIS THESIS

University of Adelaide Faculty of Health Science Postgraduate Research Conference. University of Adelaide, Australia, 31 August, 2012. Poster presentation. M. Xu, M. O’Keefe, C. Laurence. ‘Medical school applicants: reasons for applying, expectation of studying at university, and professional attitudes’.

Australian and New Zealand Association for Health Professional Educators Conference. Melbourne, Australia, 24th - 27th June, 2013. Poster presentation. M. Xu, M. O’Keefe, C. Laurence. ‘First year at medical school: changes in motives, comparison of expectations and experiences’.

11th Asia Pacific Medical Education Conference. National University of Singapore, Singapore, 15th - 19th January, 2014. Oral poster presentation. M. Xu, M. O’Keefe, C. Laurence. ‘Assessing medical students’ motives for studying medicine: a scale development and validation’.

11th Asia Pacific Medical Education Conference. National University of Singapore, Singapore, 15th - 19th January, 2014. Oral poster presentation. M. Xu, M. O’Keefe, C. Laurence. ‘First year at medical school: changes in motives, comparison of expectations and experiences’.

ABSTRACT

Background

Altruism is regarded as a core attribute of medical practice and an important motivation for medical students to study medicine. Medical students' motivations for studying medicine have also been found to have an impact on multiple aspects of their learning at medical school. These are important areas of investigation because medical students are expected to graduate with the professionalism which prepares them for providing care to patients, and a commitment to continuous learning of skills and knowledge. To date there has been little longitudinal research into changes in medical students' motivations for studying medicine during medical school and factors that affect motivational changes. This study aims to explore medical students' motivations for studying medicine before and during medical school, and its relationships with altruistic attitudes and expectations/experiences of learning at university.

Method

The study was conducted within the University of Adelaide undergraduate entry medical program. The medical applicants completed the entry baseline questionnaire at the application stage for 2012 and then the entry follow-up questionnaire 12 months later in 2013 (as second year medical students). Meanwhile, the fourth year medical students completed the fourth-year baseline questionnaire in the middle of their fourth year in 2012 and then the fourth-year follow-up questionnaire 12 months later in 2013 (as fifth year medical students). Not everyone who completed the baseline questionnaires completed the follow-up questionnaires, and vice versa. The questionnaires included a socio-demographic section and Likert items concerning the reasons for studying medicine, altruistic attitudes, and expectations/experiences of learning at university.

Results

Baseline responses from medical applicants and fourth year medical students showed that desire for helping others and the enjoyment of interacting with people were the most important reasons for studying medicine, followed by scientific curiosity. Four

factors of reasons for studying medicine were identified through factor analysis: people-orientation, science-orientation, job status/security, and external pressure. Those medical applicants who rated people-orientation as more important tended to have significantly higher levels of altruistic attitudes, and to consider ready access to staff and interaction with other students to be significantly more important. The medical applicants who rated science-orientation as more important were in greater agreement about the likelihood of continuing study after graduation. Similar relationships were found among the fourth year medical students.

Comparison between baseline and follow-up responses showed that the second year medical students considered people-orientation and science-orientation significantly less important than the medical applicants, while job status/security and external pressure were significantly more important as reasons for studying medicine than for the medical applicants. However, job status/security and external pressure made only a small contribution overall to student motivations for studying medicine. Importantly, medical students' altruistic attitudes declined significantly after the first year. The first year university experiences also differed significantly from expectations at the application stage in various aspects, such as access to staff, interaction with other students, attending lectures, and activities outside university. These discordances were also detected in the paired baseline and follow-up responses. In contrast, few significant changes in reasons for studying medicine and altruistic attitudes, or differences in experiences of learning at university, were found after the fourth year at medical school.

Discussion

This study finds that altruism is the most important reason for studying medicine and it persists in later years at medical school, despite its decline during the first year. The first year at medical school is a critical year of adjustment. The changes in altruistic attitudes and mismatches between expectations at the application stage and first year experiences may reflect the adaptation to university. This study suggests that medical schools should aim at maintaining and enhancing first year medical students' motivations for studying medicine. Medical schools should also consider assisting students in their professional socialisation and their transition from secondary schools to medical schools.

THESIS DECLARATION

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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Date: Dec 14, 2014

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