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Types of Motivation Driving Thai High School Students to enter Medical Schools

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ABSTRACT

A large majority of high school students in Thailand set their aim to continue their further education in medicine. It is not uncommon to expect that there could potentially be various reasons for setting this educational goal, ranging from extrinsic controls to intrinsic values. This study therefore adopts the framework of self-determination to convey various forms of regulation that play crucial parts in decision making among Thai high school students. Self-determination theory presents types of regulation that drive one to take action, consisting of amotivation, extrinsic motivation (i.e. external, introjected, identified, and integrated regulations), and intrinsic motivation. Based on a survey with 80 high school students preparing for medical school admissions, the result shows three major types of regulation consisting of identified, integrated and external regulations chosen by 27.50%, 26.25%, and 23.75%, respectively. Although the most effective form of regulation in which students find learning most meaningful, intrinsic motivation, is not chosen by the majority, statistical tests reveal that there is a strong positive correlation between intrinsic motivation and integrated regulation, as well as a moderate positive correlation between intrinsic motivation and identified regulation. However, no statistical correlation between external regulation and intrinsic motivation can be observed in this cohort. In contrast, amotivation and introjected regulation show a moderate negative correlation with intrinsic motivation.

Keywords: Self-determination; Motivation; Medicine; High school students

INTRODUCTION

It is common among high school students in many countries, especially Thailand that a large number aim to pursue their undergraduate degree in medicine (Ennals, 1990). This educational goal has been set for a variety of reasons, ranging from financial security to intrinsic value of personal fulfilment (Baker, 2004). Psychologists have shown that different forms of motivation yield different results in learning and pleasure in learning (Williams et al., 1999). There are potentially three main forms of motivation: amotivation, extrinsic motivation, and intrinsic motivation (Vallerand, et al, 1992).

First and foremost, amotivation is simply a lack of motivation to do a certain task. Thus this form of motivation leads to educational avoidance. In contrast, a more positive form of control is believed to sustain by intrinsic motivation in which a person takes action for the mere purpose of enjoyment and interest without setting an external goal (Lin et al., 2003). This type of motivation shows a strong correlation with better school performance, a greater sense of satisfaction, and a higher degree of perseverance, among many others (Gottfried, 1985; Gottfried, 1990). This leads to growing concerns among teachers and educators to help promote intrinsic motivation of school students. This is due to the fact that the more intrinsically a learner is driven, the more positive learning outcomes he or she is likely to experience (Hein et al., 2004). On the other hand, extrinsic motivation refers to various forms of

external factors such as money, family expectations, grades and rewards that drive actions to take place. However, it is shown to have negative consequences in learning (Lin et al., 2003). Recent research shows that extrinsic motivation leads to a lower level of school performance, a lack of motivation to learn, a higher rate of dropouts, stressful mental conditions, and unhappiness (Cabus & De Witte, 2016).

Taking extrinsic motivation into greater consideration, the theory of self-determination classifies this into four distinct forms: external, introjected, identified and integrated regulations (Deci & Ryan, 2012). First, external regulations exist when one takes action due to external triggers such as money, grades, respects, rewards, praise, and something along these lines. Therefore, these generally detach from one's own interest. It largely influences as temptation. Second, introjected regulations concern personal guilts arisen if a particular action is withdrawn. More specifically, one chooses to do something because he or she is afraid that if this action is missed out, there would be surrounding people including their parents, close friends, teachers and relatives who are upset. Simply put, others' feelings and expectation take control one to do certain tasks. Third, when one is driven by identified regulations, he or she would see the importance of an action and evaluates it as worthy which then leads him or her to engage with it. Finally, when one finds the value of a task closely aligned with personal identity, life goals and determination, one is believed to be driven by integrated regulations (Markland et al., 2005).

According to recent educational research, it is shown that internal controls composing of identified regulation, integrated regulation and intrinsic motivation yield more positive results in learning (Deci & Ryan, 2012). Therefore, it is important to assist learners to identify the importance of their study and how this can fulfil their life goals. In addition, it is important to help learners know who they actually are and what they are intrinsically interested in as these will help them find enjoyment in their education.

This study is therefore conducted to investigate various forms of motivation according to the self-determination theory that drives high school students to choose to study medicine and persistently pursue their educational goals. In addition, it seeks to find out which forms of motivation that are potentially beneficial for making such decision.

Methodology

A questionnaire containing six statements representing amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic motivation, was developed. It was blindly distributed as an online survey to high school students in Northeastern and Central Thailand who had an educational aim to enter medical school in Thailand. Once the returned responses reached 80, the analysis of data using descriptive and inferential statistics was carried out. Students' view towards the influence of the six forms of regulation was shown as mean scores from 5-Likert scaling responses, ranging from strong disagreement to strong agreement. Students' main type of regulation was displayed using a frequency table where student respondents chose one description that best conveys their actual motivation. Finally, a correlation test was performed to reveal how these types of motivation are related statistically.

Result

According to Table 1, student respondents tended to strongly agree that they would like to study medicine because they identified that this profession is important for them so that identified regulation was rated 4.51 out of 5. However, their opinion towards external regulation in the form of prestige and financial incentives of this profession was also predominantly positive as the mean score was 4.14 out of 5. Other two forms of regulation that showed a comparable result was integrated regulation (4.00) where the respondents find studying medicine is closely aligned with the type of persons who they are, and intrinsic motivation where they do not concern extrinsic triggers but are merely driven by intrinsic values and enjoyment (3.89).

Interestingly, the mean score of introjected regulation where the decision to study medicine is driven by expectations from surrounding people was 2.98, meaning that a great disparity of opinions exist; however, they tended to be uncertain if this form of regulation plays any significant part in their decision. Finally, the student respondents were likely to disagree with the idea that they do not actually have a

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clear motivation of pursuing their university education in medicine as the mean score was as low as 1.78. In sum, the major form of regulation that the student respondents predominantly agreed with is identified regulation, followed by external regulation, integrated regulation, and intrinsic motivation, respectively. In contrast, they mainly disagreed with amotivation and were unsure about introjected regulation.

Level	Mean
Amotivation	1.78
External regulation	4.14
Introjected regulation	2.98
Identified regulation	4.51
Integrated regulation	4.00
Intrinsic motivation	3.89

Table 1: Students' view on the types of self-determination to pursue their study in medicine based on a 5-Likert scale where 5 signifies strong agreement while 1 strong disagreement

We also sought to find out what would happen if the respondents were asked to choose only one description out of the total of six statements that represent the whole spectrum of various forms of motivational regulations. The purpose of this is to investigate a major form or forms of motivation, while being aware that one can be driven by different forms of motivation simultaneously.

Somewhat similar to the mean scores based on 5-Likert scale, when the respondents were asked to choose one preferred statement that best describes their actual form of motivation, two major regulations were identified regulation (27.50%) and integrated regulation (26.25%). Following this was external regulation (23.75%) which was also considered relatively high. Furthermore, intrinsic motivation was chosen by 11.25% of the respondents as the prefered mode of motivation. Interestingly, a small group of students chose introjected and amotivation as their forms of decision triggers, expressed by 8.75% and 2.50%, respectively.

Prefered level	Frequency	Percent
Amotivation	2	2.50
External regulation	19	23.75
Introjected regulation	7	8.75

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Identified regulation	22	27.50
Integrated regulation	21	26.25
Intrinsic motivation	9	11.25

Table 2: Students' selection of one type of self-determination to pursue their study in medicine

Based on a correlational test, the emphasis rests on the relationship between intrinsic motivation and other forms of regulation. The rationale behind this is that intrinsic motivation is believed to be the most educationally beneficial which can contribute to meaningful experiences of learning. It is important to note that only those pairs that show a correlation coefficient greater than 0.3 are considered. The analysis shows that there was a strong positive correlation between integrated regulation and intrinsic motivation (r = 0.72). Additionally, there was a moderate positive correlation identified regulation and intrinsic motivation (r = 0.43). A moderate positive correlation was also found between integrated regulation and identified regulation (r = 0.40). All these can be inferred that intrinsic motivation, integrated regulation and identified regulation are positively interrelated, especially integrated regulation and intrinsic motivation.

On the other hand, two forms of regulations were negatively correlated with both intrinsic motivation and integrated regulation. Firstly, there were moderate negative correlations between amotivation and intrinsic motivation (r = -0.32), as well as between amotivation and integrated regulation (r = -0.35). Secondly, there were moderate negative correlations between introjected regulation and intrinsic motivation (r = -0.45), as well as between introjected regulation and integrated regulation (r = -0.45). However, amotivation and introjected regulation had a moderate positive relationship (r = 0.36). Simply put, both amotivation and introjected regulation are negatively related to those useful forms of motivation, but positively related to each other. Interestingly, no statistical correlation was found between external regulation and intrinsic motivation, nor between external regulation and integrated regulation, while it shows a weak correlation with introjected regulation.

	Amotivated	External	Introjected	Identified	Integrated	Intrinsic
Amotivated	1.00					
External	-0.01	1.00				
Introjected	***0.36***	***0.37***	1.00			
Identified	-0.27	0.27	0.05	1.00		
Integrated	***-0.35***	0.07	***-0.45***	***0.40***	1.00	
Intrinsic	***-0.32***	-0.03	***-0.45***	***0.43***	***0.72***	1.00

Table 3: A correlation test of the six forms of self-determination regulations

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Discussion

Various forms of motivation can exist when one considers pursuing a higher educational level (Baker, 2004). Self-determination theory points out that there could potentially be at least six forms of motivation triggering one to make a critical decision. First and foremost, considering further education as a goal, many who do not have any particular interest in study may not be motivated to do. This may leave them to follow others when making decisions. Some may even randomly choose what they study without considering their personal interests or possible consequences. Of course, this form of motivation, called amotivation, tends to result in negative consequences in learning. In this study, it may be a great relief not seeing many students choosing this particular form of regulation. Second, many may choose to study medicine because this profession could bring them prestige and prosperity which is not uncommon in Thailand. The result from this study echoes this phenomenon as almost a quarter seemed to be driven by this. However, there are at least two reasons not to be worried about this issue. One is the fact that students are driven by multiple forms of regulation simultaneously. Although many chose this form, it does not mean that they did not hold other positive forms of motivation. The other is the fact that there was no statistical correlation between this regulation and intrinsic motivation which implies happiness in learning. Therefore, this result shows a large number of students driven by external regulation; however, no special concerns should be embraced.

What should be the most serious concern arisen from this study is the negative correlation between introjected regulation and intrinsic motivation as well as integrated regulation. Introjected feelings occur when people decide to do something because they do not want others to feel upset if they do not do. Many students in Thailand have been raised in families where one or both parents are doctors. Therefore, they feel a sense of parental expectation that they should also become a doctor. Others may feel pressured by teachers. As it is commonly perceived that as they are high performing learners, they are supposed to enter medical schools. Once this form of motivation emerges, it negatively correlates with intrinsic motivation. In addition, it negatively correlates with integrated regulation. This prompts both teachers and parents to be cautious about their expectations. Also, it urges students to be aware of negative consequences that may arise if they are driven by this form of control.

Finally, in educational contexts, it is not practical to expect that students will always be driven intrinsically by joyfulness and mere interest in the subject. There are of course influences from external factors in various forms. However, this study shows that when students find the purpose and importance of the profession that they are leaning towards (identified regulation), it is more likely that they will be intrinsically driven. In addition, if they know who they really are, what they genuinely desire to do, what their personality is, and something along these lines, the external goal of being a doctor would be closely integrated with their own identity (integrated regulation) which then potentially leads to pleasure in learning. This can be legitimately inferred by the fact that there were positive correlations among these three forms of motivation, especially intrinsic motivation and integrated regulation in this cohort.

Therefore, it is highly recommended for parents and teachers to help their children find the meaningful purpose and importance of their further education. In the meantime, it is also crucial to help students know who they are and what they like. The earlier they can find this hidden value, the smoother pathway that brings them to satisfactory education. Letting students choose their further education from parental expectations, social influences and financial incentives is not considered useful. Instead of looking outward, they have to pay more attention inwardly and seek to understand and know who they are and move towards the direction that can make them the best version that they could potentially become.

Conclusion

This quantitative study explores various forms of motivation that drive high school students in Thailand to pursue their undergraduate education in medical schools. Based on responses from 80 students, the major form of motivation is identified regulation, followed by integrated regulation. Both are considered educationally useful for students. In addition, this study points out two main forms of motivation that should be avoided as they have a negative relationship with pleasure in learning. One is amotivation and the other is introjected regulation.

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Finally, although external regulation have been criticised by many that it brings negative consequences in learning, no statistical correlation is arisen in this study. Therefore, it is highly recommended for parents and teachers to help their children find the meaningful purpose and importance of their further education. In the meantime, it is also crucial to help students know who they are and what they like. The earlier they can find this hidden value, the smoother pathway that brings them to satisfactory education.

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