Original Article

Psychometric analysis of a tool to assess metamotivational strategies in undergraduate anesthesia students

Ali Norouzi [1], Mohammad Hossein Shakeri Goki [2], Fatemeh Atoof [3], Nazdar Ezzaddin Alkhateeb [4], Fakhrosadat Mirhosseini [5*]

[1] Social Determinants of Health Research Center & Education Development Center (EDC), Zanjan University of Medical Sciences, Zanjan, Iran.
[2] Anesthesia Department, School of Allied Medical Sciences, Rafsanjan University of Medical Sciences, Rafsanjan, Iran.
[3] Department of Biostatistics & Epidemiology, Faculty of Health, Kashan University of Medical Sciences, Kashan, Iran.
[4] Department of Medical Education, College of Medicine, Howler Medical University, Erbil, Kurdistan Region, Iraq.
[5] Trauma Research Center & Educational Development Center & Anesthesia Department, School of Allied Medical Sciences, Kashan University of Medical Sciences, Kashan, Iran.

Article Info

Article history:
Received 28 Nov. 2022
Accepted 26 July. 2023
Published 16 Mar. 2024

***Corresponding author:**
Fakhrosadat Mirhosseini, Trauma Research Center & Educational Development Center & Anesthesia Department, School of Allied Medical Sciences, Kashan University of Medical Sciences, Kashan, Iran.
Email: Mirhosseinisadat@gmail.com

How to cite this article:
Norouzi A, Shakeri Goki MH, Atoof F, Ezzaddin Alkhateeb N, Mirhosseini F. Psychometric analysis of a tool to assess metamotivational strategies in undergraduate anesthesia students. J Med Edu Dev. 2024; 16(52): 1-9.

Abstract

Background & Objective: Undergraduate anesthesia students benefit from motivational self-regulation strategies when facing specific academic challenges to maintain and improve their academic motivation. Due to the absence of valid and reliable instruments to assess these strategies, the present study aimed at the psychometrical analysis of MSMQ (Metamotivational Strategies in Medical Students) which is used to measure meta-motivational strategies in undergraduate anesthesia students.

Materials & Methods: In this psychometric study, 358 undergraduate anesthesia students were selected by convenience sampling method. The research community included undergraduate anesthesia students in Iran, and the MSMQ questionnaire was provided for them to complete. Its validity was determined by face and content validity methods, and its reliability was determined by the internal consistency method. The confirmatory factor analysis method was used to check construct validity.

Results: The CVI and CVR values were obtained at ≥ 0.80 for all items. In the confirmatory factor analysis, the factor loading of all items was reported to be ≤ 0.40, and the mentioned instrument enjoyed the goodness of fit indices (RMSEA = 0.064, NNFI = 0.96, CFI = 0.97, SRMR = 0.06, GFI = 0.86). Acceptable reliability coefficients were obtained for the subscales, and Cronbach's alpha coefficient for the whole questionnaire was 0.922.

Conclusion: As evidenced by the results of this study, the MSMQ questionnaire is a valid and reliable instrument; therefore, it can be used for Iranian undergraduate anesthesia students.

Keywords: Metamotivational Strategies, Motivational Regulation, Self-Regulation, Motivation, Undergraduate Anesthesia Student

Introduction

In scientific texts, motivation is referred to as a force that creates and maintains behavior and is one of the most important components of learning (1). Researchers in learning psychology believe that learners have the ability to consciously and purposefully monitor and control their motivation. Therefore, another concept that is considered is motivational regulation (2). The study by Wolters (1998) led to the emergence of the concept of motivational self-regulation strategies among learners. Wolters describes motivational regulation as a conscious process in which learners are aware of the factors affecting their motivation as well as how to develop their motivation by manipulating their thoughts and actions (3). Since then, a wide array of studies has been conducted to determine motivational strategies and their relationship with other variables and develop various questionnaires to assess these strategies (2-9).

For example, Miele & Scholer (2016) presented a model of motivation regulation that describes how learners monitor their motivation and used the term

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[DOI: 10.32592/jmed.2023.16.52.1]

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metamotivation to describe this process (2, 5, 6). One of the important features of meta-motivational knowledge is the ability to teach its strategies to learners (10). Wolters (1999), for the first time, developed an instrument for assessing motivational regulation strategies. He introduced five strategies, including self-consequating, environmental control, performance self-talk, mastery self-talk, and interest-enhancement, to regulate motivation (11). This questionnaire has been used in numerous studies (8, 15, 18). In 2013, Wolters and Benzon revised this questionnaire by adding another strategy (regulation-of-value) and making modifications in the names of other strategies; nonetheless, some researchers criticized this questionnaire, and others reviewed it (5, 19).

Other investigations, such as the research by Sanchez et al. (2019) on university students in Argentine and the study by Schwinger et al. (2007) on university students in Germany, identified motivational self-regulation strategies and developed an instrument to measure motivational regulation strategies according to their context (14, 20). Contextualization is considered one of the most important characteristics of metamotivational strategies (3, 4). One of the important contexts is medical education, the importance of which is acknowledged by people from all walks of life.

The contextual characteristics of medical education, such as clinical education, as well as very specific professions and educational environments, do not exist in other sciences, such as technology, engineering, and mathematics (22). Based on our literature review, the MSMQ questionnaire is currently an instrument developed by Norouzi et al. (2021) to measure meta-motivational strategies in accordance with the medical field in Iran and in Persian language. In their study, Norouzi et al. emphasized that in order to use this instrument in future studies, it can be used in other contexts of medical education by conducting confirmatory factor analysis (7).

The strategies identified in the study by Nowrozi et al. (2021) were: regulation of value (5 items), regulation of situational interest (4 items), regulation of relatedness (4 items), self-consequating (3 items), environmental control (5 items), promotional situational awareness(4 items), and preventional situational awareness (3 items). Cronbach's alpha of the MSMQ questionnaire was 0.89, ICC = 0.87-0.76, and CVI > 0.79 in the study by Norouzi et al. Moreover, in exploratory factor analysis with seven subscales,67.5% of the variance was explained (7). One of the most important fields in medical sciences is anesthesia. Students in this discipline must be trained to acquire the skills needed to play the desired role in the operating room, hospital emergency department in the resuscitation team, road and urban emergency, and special care departments (23).

The necessity and importance of this research can be expressed with regard to several issues:

1- Anesthesiologists are exposed to a stressful clinical environment, which requires taking immediate measures to save patients' lives.

2. In the future, anesthesia students will be employed in different parts of hospitals, from the operating room to the emergency and special care departments.

3. It is possible to teach meta-motivational knowledge to learners according to two ways of teaching motivational regulation strategies and modeling motivational regulation (10).

4. The teaching of meta-motivational strategies can help the education of these students with regard to the relationship between meta-motivation and predicting variables of academic performance and dropping out of school. Moreover, efficient clinical training can greatly help patients in educational hospitals, trainers, and the health system in their future careers (24).

5. Anastasia students must learn skills to manage critical patients (23). It should be kept in mind that limited studies have been performed on motivation in anesthesiology.

According to our scientific search, no study has been conducted regarding the use of tools for assessing motivational strategies among anesthesia students. Due to the newness of this instrument in the field of medical education and the problems caused by the lack of motivation among students of medical sciences (25), it is necessary that this tool be approved in the new society. In light of the aforementioned issues, the present study aimed to assess some psychometric characteristics of the instrument for measuring motivational regulation strategies and providing a valid and reliable tool to be used in the community of anesthesia students.

Materials & Methods

Design and setting(s)

In this study, the MSMQ instrument was psychometrically assessed in anesthesia students in medical sciences universities in Iran. This tool was developed by Norouzi et al. (2021) to be used for Iranian medical students, and its Persian version was used (7). This tool included 28 items and 7 subscales.

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[DOI: 10.32592/jmed.2023.16.52.1]

Participants and sampling

This research was conducted on 358 anesthesia students who were selected via the convenience sampling method. These students were studying in one of the medical sciences universities in Iran in the year (2021-2022), completed at least one semester, and experienced the clinical phase (anesthesia students usually enter the clinical phase from the second semester).

Face validity

A panel of experts (consisting of seven members (including two medical education specialists with a doctorate degree, one clinical psychology specialist with a doctorate degree, two Master of Science students in anesthesia with experience in teaching anesthesia students, and two anesthesia interns) was formed to assess the face validity of items. Before the panel meeting, the objectives of the research and the file of the questionnaire items were provided to the panel members, and in a meeting, they were asked to express their opinions about each item regarding the appropriateness and simplicity of each item for anesthesia students. Thereafter, the vocabulary modifications agreed on by the majority of experts were applied to make an item simpler or more understandable without changing the concept.

Content validity

To determine content validity, CVR and CVI indices were used for each item. The instrument was developed in Excel file format, and this file was sent via email and internet messengers along with the file containing goals and explanations of 10 experts, including doctorates in medical education and psychology, as well as Master of Science students in anesthesia with a history of theoretical or practical teaching in the clinical environment. Lawshe formula was used to determine CVR. The experts were asked to determine the appropriateness of each item based on a three-point Likert scale of "necessary," "useful but unnecessary," and "unnecessary" (26). Waltz & Bausell method was used to determine CVI. The experts were asked to respond to three criteria of simplicity and fluency, transparency, and communication for each item. The simplicity and fluency were rated based on a four-point Likert scale, including 1-complex, 2-somewhat simple, 3-simple, and 4-very simple. Regarding relevance, a four-point Likert scale, including 1-not relevant, 2-somewhat relevant, 3- Relevant, and 4- very relevant, was used. Regarding transparency, the four-point Likert scale included 1- vague, 2- partially transparent, 3-transparent, and 4- very transparent (26).

Construct validity

The construct validity of the instrument was evaluated with structural equations using confirmatory factor analysis and factor loading. The factor loading was considered >0.4 for construct validity (28).

Data collection methods

After face and content validity, the participants were selected by convenience sampling method. The link of the questionnaire was provided online to the representatives of anesthesia groups to inform them. Anastasia students from all major research areas of the country (medical sciences universities in Iran and sub-groups of the Ministry of Health and Medical Education in the field of health are classified into 10 major regions in terms of indicators, such as manpower and equipment. They are responsible for performing transnational, national, provincial, and regional policies) were present in the research from medical sciences universities of Tehran, Alborz, Qom, Kerman, Rafsanjan, Jiroft, Sirjan, Kurdistan, Yazd, Isfahan, Kashan, Semnan, Jahrom, Shiraz, Zanjan, Ahvaz, Abadan, Urmia, Sabzevar, and Kermanshah. Based on the study by Kyriazos, the sample size was calculated at 10 cases for each item for a confirmatory factor analysis with an accurate estimation of model fit evaluation parameters (28). Considering that the questionnaire had 28 items, at least 280 subjects were sufficient. Finally, 358 cases entered the study. The items were rated on a five-point Likert scale, ranging from never=1, rarely=2, sometimes=3, usually=4, and always=5.

Data analysis

The reliability of the questionnaire and subscales was analyzed by the internal consistency method and by calculating Cronbach's alpha coefficient using SPSS software (version 22). Thereafter, data normality was assessed using the Kolmogorov-Smirnov test with a significance level of 0.010. The data were not normal; nonetheless, there was no deviation from the normality of the data in terms of graphics and asymmetry. Following that, the data were entered into the LISREL software, and the first-order confirmatory factor analysis was performed on the data without modifying the model. The model fit indices were obtained to evaluate the fit of the numerical model (29, 30). Therefore, goodness of fit index (GFI), comparative fit index (CFI), and non-standardized fit index (NNFI) were considered suitable

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[DOI: 10.32592/jmed.2023.16.52.1]

with values higher than 0.9. The root mean square error of estimation (RMSEA) and standard root mean residual (SRMR) were also evaluated as good when they are < 0.05 and acceptable when they are <0.08.

Results

Table 1 illustrates the results of the frequency and percentage of the variables. The mean age of participants was 21.68±2.4.

Table 1. Frequency and frequency percentage of demographic variables

Variable*		Frequency	Frequency percentage
Academic year	First year	51	14.20%
	Second year	93	26.00%
	Third year	133	37.20%
	Forth year	81	22.60%
Gender	Male	108	30.20%
	Female	250	69.80%
Marital status	Single	322	89.90%
	Married	36	10.10%

*Including three demographic variables: gender (including male and female), marital status (single, married), and academic year

Face validity: In the panel of experts, the items of the questionnaire were analyzed and revised based on the context of anesthesia discipline. In order to increase simplicity, five items were revised in terms of vocabulary without changing the concept of the item. Table 2 presents the revised items; moreover, all the items were found to be semantically relevant to the context of anesthesia discipline.

Table 2. Modified items in face validity

Subscale name	Primary subject	Lexically modified item
promotional situational awareness strategy	I try to reflect on my performance in past academic situations for my academic progress	I try to reflect (think) my academic performance.
	I try to think about my strengths and weaknesses in my previous academic opportunities for my academic progress	I try to think about my strengths and weaknesses in my previous academic opportunities
regulation of situational interest strategy	I promise myself that if I complete my educational tasks or assignments, I will do an interesting job	I promise myself that if I complete my educational projects or assignments, I will do an interesting job.
self-consequating strategy	I promise myself that I will start my favorite job when I have completed my educational tasks or assignments	I make a promise to myself that I will start my favorite work when I have finished my homework
Preventional situational awareness strategy	I try to gain knowledge on specific styles or characteristics of the relevant professors to behave according to their pattern Before entering an educational phase or situation	I try to gain knowledge on specific styles or characteristics of the relevant professors to behave according to their pattern Before entering a new educational situation

†Primary items: items that are in the MSMQ questionnaire.
‡Lexically modified item: an item from the MSMQ questionnaire that has been lexically changed without changing the meaning

Content validity: CVI and CVR indices were calculated for all the items, and CVI < 0.79 and CVR < 0.62 were obtained for all items; therefore, no item was deleted. Table 3 shows the average CVR and CVI values of the simplicity, transparency, and relevance of the entire questionnaire.

Table 3. Content validity index and content validity ratio of the entire questionnaire

	Minimum	Maximum	SD	Mean
CVR†	0.8	1	0.11	0.85
CVI ‡ Simplicity	0.8	1	0.07	0.96
CVI‡ Transparency	0.8	1	0.07	0.96
CVI‡ Relavance	0.8	1	0.08	0.92

†CVR (content validity ratio): the content validity ratio for each item based on Lawshe formula based on the number of ten expert panel members must be >0.62 so that the item remains in the resulting tool.
‡ CVI (content validity index): content validity index including simplicity, transparency, and relavance, the value of which for each item based on the Waltz & Bausell formula should be >0.79 so that the item remains in the resulting tool.

Construct validity: Figure 1 displays the measurement model of this tool in the standard estimation mode. This figure presents the standardized values related to factor loadings and variance errors. The fit indices of the model were as follows:

RMSEA = 0.064 NNFI = 0.96 CFI = 0.97 SRMR = 0.06 GFI = 0.86

Table 4 demonstrates the obtained values of all paths, including unstandardized parameter estimates, standardized loadings, variance errors in standard model

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[DOI: 10.32592/jmed.2023.16.52.1]

mode, t, and R2. As illustrated in Table 4, the factor loading of all items is ≥ 0.4. Moreover, Figure 2 shows the measurement model of this tool in the mode of significant coefficients. The reliability of the instrument was measured by Cronbach's alpha method. The reliability of all subscales was above 0.660, and the Cronbach's alpha value of the whole questionnaire was 0.922. The reliability results for each subscale are presented in Table 5.

Table 4. Parameters obtained for the paths in the questionnaire

The paths	Unstandardized parameter estimates	Standardized loads†	Variance errors in the mode of the standard model‡	t	$R^{2‡}$
regulation of value→ Q_1	1.00	0.72	0.48	-	0.52
regulation of value→Q_2	0.88	0.71	0.49	12.80	0.51
regulation of value→Q_3	1.19	0.82	0.33	14.58	0.67
regulation of value→Q_4	1.1	0.63	0.60	11.36	0.40
regulation of value→Q_5	1.27	0.85	0.27	15.13	0.73
Environmental control→ Q_1	1.00	0.71	0.50	-	0.50
Environmental control→ Q_2	1.05	0.80	0.36	13.72	0.64
Environmental control→ Q_3	1.08	0.84	0.30	14.23	0.70
Environmental control→ Q_4	0.88	0.62	0.62	10.78	0.38
Environmental control→ Q_5	0.75	0.57	0.68	9.95	0.32
regulation of relatedness→Q_1	1.00	0.69	0.52	-	0.48
regulation of relatedness→Q_2	0.91	0.58	0.66	8.90	0.34
regulation of relatedness→Q_3	0.96	0.60	0.64	9.14	0.36
regulation of relatedness→Q_4	0.60	0.40	0.84	6.47	0.16
promotional situational awareness → Q_1	1.00	0.63	0.61	-	0.39
promotional situational awareness→ Q_2	1.30	0.66	0.56	10.2	0.44
promotional situational awareness→ Q_3	1.32	0.78	0.39	11.44	0.61
promotional situational awareness→Q_4	1.18	0.69	0.53	10.51	0.47
regulation of situational interest→ Q_1	1.00	0.71	0.50	-	0.51
regulation of situational interest→ Q_2	1.06	0.80	0.36	13.31	0.64
regulation of situational interest→ Q_3	1.19	0.75	0.43	12.69	0.57
regulation of situational interest→ Q_4	0.96	0.65	0.57	11.16	0.43
self-consequating→ Q_1	1.00	0.91	0.18	-	0.82
self-consequating→ Q_2	0.98	0.87	0.25	19.97	0.75
self-consequating→ Q_3	0.73	0.70	0.51	15.11	0.49
preventional situational awareness→ Q_1	1.00	0.54	0.71	-	0.39
preventional situational awareness→ Q_2	1.24	0.73	0.47	8.68	0.53
preventional situational awareness→ Q_3	1.11	0.77	0.40	8.84	0.60

†It should be ≥ 0.4 so that the desired item is not deleted or reviewed, the higher the value, the greater the relationship between the item and the desired subscale
‡.R^2 is equal to factor load to the power of two, and the sum of R^2 value and variance error in standard mode is equal to one

Table 5. Reliability coefficients† of the subscales and the total questionnaire

Subscales	regulation of value	preventional situational awareness	self-consequating	regulation of situational interest	promotional situational awareness	regulation of relatedness	Environmental control	The total questionnaire
Cronbach's alpha coefficients	0.855	0.694	0.862	0.815	0.779	0.665	0.829	0.922

†The reliability of the subscales was measured using the internal consistency method, Cronbach's alpha coefficient

Discussion

The present study aimed at psychometrical analysis of MSMQ (Metamotivational Strategies in Medical Students), which is used to assess meta-motivational strategies in undergraduate anesthesia students. The construct validity of this scale was assessed using confirmatory factor analysis. In the panel of experts, the items were revised based on the context of the anesthesia discipline. Content validity was measured with CVR and CVI indices, the content validity ratio for all items was above 0.620, which was acceptable based on Lawshe's table, and the content validity index was above 0.80 in terms of simplicity, transparency, and relevance, which was acceptable based on Waltz & Bausell method. Therefore, no item was removed before sampling. In terms of reliability, all the subscales had acceptable reliability, and the regulation of relatedness subscale, with Cronbach's alpha of 0.665, had the lowest reliability among the subscales. This subscale had a lower Cronbach's alpha compared to the study by Nowrozi et al. (2021). (7) The other subscales had a Cronbach's alpha coefficient above 0.690, and the reliability of the whole questionnaire was 0.922, which was slightly higher than the questionnaire by Nowrozi et al. (Cronbach's alpha of 0.890), signifying the high reliability of this questionnaire in the population of anesthesia students.

In addition, the Cronbach's alpha reliability coefficients of self-consequating and preventional situational awareness subscales in the questionnaire by Nowrozi et

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[DOI: 10.32592/jmed.2023.16.52.1]

al. (2021) were 0.668 and 0.678, respectively, while the Cronbach's alpha reliability coefficients of these subscales in this study were 0.862 and 0.694, respectively. In terms of construct validity, the factor loading of all the items was ≥ 0.4, which is acceptable. The item (I try to talk about academic subjects with friends and relatives) related to the regulation of relatedness (factor loading 4. 0) had the lowest acceptable factor loading. The values of R2 showed that in the subscale of "regulation of value, "item 5, in the subscale of " environmental control, "item 3, in the subscale of " regulation of relatedness, "item 1, in the subscale of "promotional situational awareness," item 3, in the subscale of " regulation of situational interest, "item 2, in the subscale of "self-consecrating, "item 1, and in the subscale of "preventional situational awareness," item 3 contributed the most to explaining the variance.

The goodness of fit indices (CFI, GFI, TLI) were all quite favorable, except for GFI (0.860) and RMSEA. The SRMR indices also showed an acceptable value, although it would be better if their values were less than 0.05; accordingly, based on these values, it can be stated that the model has a good fit. Like the tool used in the study by Nowrozi et al. (2021), this instrument has 28 items and seven subscales, namely regulation of relatedness, regulation of value, environmental control, promotional situational awareness, self-consequating, preventional situational awareness, regulation of situational interest (7).

The " regulation of value " subscale included five items, all of which had high factor loadings (<0.7), suggesting that these items have a high relationship and correlation with their subscale. In addition, the items of this subscale demonstrate that anesthesia students try to devote more time to important issues by thinking about the high value of anesthesia discipline and the relationship between educational materials and the professional future. The concepts of this subscale can also be found in the studies by Wolters and Benzen (2013), Sanchez et al. (2019), and Wang et al. (2019) (9, 20, 21). In the study by Wolters and Benzen (2013), like in the research by Nowrozi et al. (2020), this strategy is referred to as regulation of value. This subscale was very similar in these two studies (7, 9).

In the study by Sanchez et al. (2019), who used Wolters and Benzen's (2013) tool for exploratory analysis in Argentinian university students, regulation of value was one of the eight strategies for self-regulation of motivation in university students in Argentine (20). In their study on German students, Schwinger et al. (2007) referred to a relatively similar strategy called increasing personal significance. In their study, this strategy suggested the concept of combining experience and learning, as well as assignments and life, to increase the promotion and regulation of motivation (8). The items of environmental control subscale included five items with a relatively high factor loading. The lowest factor loading (0.57) pertained to the item (I try to avoid people who cause frustration and decrease motivation in the educational environment). The establishment of a favorable environment with high concentration and peace of mind for studying were the concepts considered in this subscale.

In the studies by Wolters and Benzen (2013), this strategy is explained with the two concepts of reducing distractions and increasing concentration or comprehensive focus on the lesson or work (9). In the studies by Krishko et al. (2020) on German students, this subscale was positively correlated with academic effort but not with university grade point average (17). The next strategy identified in the present study was communication regulation. With a glance at the four items of this subscale, it can be observed that one of the most important ways to regulate academic motivation in anesthesia students is to communicate with key and significant people around them.

The establishment of relationships with significant people assumes critical importance in medical education (22). In a review study by Wolters et al. (2003), this strategy was mentioned in the way that learners may consciously talk to their friends to control their emotions and maintain their academic effort (4). Except for the research by Nowrozi et al. (2021), this strategy was not directly observed in previous studies, and the results of the present study demonstrated that anesthesia students use this strategy like medical students (7). In the " regulation of situational interest," anesthesia students try to increase their interest in the academic environment by implementing some measures, such as making games, game-based educational materials, and connecting topics with personal interests. This strategy was considered in the study by Sanchez et al. (2019) with five items (20).

The next strategy was "promotional situational awareness," in which learners control their academic motivation by becoming aware of their academic situation relative to their academic progress. This strategy had a broader framework than the mastery goals strategy in the study by Wolters and Benzen (2013). In the mastery goals strategy, learners took actions and

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[DOI: 10.32592/jmed.2023.16.52.1]

efforts to increase their desire to improve their understanding or learning as much as possible (9). In using the promotional situational awareness, anesthesia students, in addition to taking such actions as thinking about their mastery goals, strengthening self-talk, and reflecting on academic performance, try other measures, such as active participation in receiving feedback and positive role modeling, to increase their awareness of the academic situation.

In preventional situational awareness, anesthesia students try to take measures, such as reverse role modeling from bad professors or actively acquiring information about the future academic situation in order to avoid negative academic consequences. For example, anesthesia students try to obtain information from various sources to identify the educational situation of the new operating room where they will do an internship to avoid the consequences of not following the behavioral pattern of this new educational situation.

Another strategy is self-consequating. In this strategy, anesthesia students set rewards or punishments for themselves by promising to do homework or complete their academic assignments. This strategy has been directly examined in the studies by Wolters (1999), Wolters and Benzen (2013), Sanchez et al. (2019), and Schwinger et al. (2007) (8, 9, 16, 20). Considering the confirmed validity and reliability of this tool in the anesthesiology context, it is suggested to conduct analytical and interventional studies regarding motivational regulation strategies in this context.

One of the strengths of this study lies in its sampling method, which offers many advantages, such as easier coordination of time, not having to travel a lot, a quiet but interactive (virtual) atmosphere, sending files and appendices related to ethical considerations via messenger programs, possibility to contact participants in the future if there is a need for follow-up, the speed of sending and completing the questionnaire, collecting and analyzing data, and these advantages increased the quality of the study. Furthermore, in sampling, it was tried to include anesthesia students from all study areas of Iran's Ministry of Health and Medical Education. One of the limitations of this study was the lack of direct access to participants and monitoring the completion of questionnaires. Nonetheless, this problem was resolved to a large extent by communicating with the representatives of anesthesia groups and emphasizing the importance of patience and time on the part of participants.

Conclusion

This study confirmed the validity and reliability of the MSMQ instrument in the anesthesiology context. It seems that anesthesia students use meta-motivational strategies to regulate motivation. Accordingly, improving these strategies can be a good way to improve their motivation quantitatively and qualitatively during their studies. Therefore, researchers in medical education can use the tools developed in this study to examine anesthesia students' use of motivational regulation strategies. In addition, it is suggested that future studies determine the cut-off point of the total score of the tool and the score of each motivational regulation strategy.

Ethical considerations

This research was approved by the code of ethics (IR.KAUMS.NUHEPM.REC.1401.022) from Kashan University of Medical Sciences. Consent was obtained from the manufacturer of the instrument used. The objectives and additional explanations of the research were explained to participants during sampling, and the participants were assured of the confidentiality of their responses.

Acknowledgments

We appreciate all the people who cooperated with us in conducting this research.

Disclosure

This paper was extracted from the first author's dissertation to the award of Master of Science (MSc) in Anesthesia Education. The authors report no conflict of interest. The authors alone are responsible for the content and writing of the article.

Author contributions

M.H.S.G, A.N and F.M conceived of the presented idea, M.H.S.G, A.N, F.M, F.A and N.E.A designed the analysis, M.H.S.G Collected the data, M.H.S.G, A.N, F.M, F.A E analyzed and interpreted the data, All authors discussed the results, F.M, M.H.S.G and A.N contributed to the final manuscript.

Funding

This study was funded by School of Allied Medical Sciences, Kashan University of Medical Sciences.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author, [Fakhrosadat M]. The data are not publicly available due to [restrictions e.g. their containing information that could compromise the privacy of research participants].

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[DOI: 10.32592/jmed.2023.16.52.1]

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