The Bioscan
AN INTERNATIONAL QUARTERLY JOURNAL OF LIFE SCIENCES
20(4): 127-141, 2025 www.thebioscan.com

# PSYCHOLOGICAL CHARACTERISTICS OF MOTIVATION AND PROFESSIONAL INTEREST IN MEDICAL STUDENTS AT TASHKENT STATE MEDICAL UNIVERSITY

**Bekmirov Tolib Rashidovich[1], Boboyeva Maksuda Ataxanovna[2], Maxamatova Nigora Baxrom qizi[3], Baxromov Xushnudbek Xislatjon o'g'li[4]**

[1]PhD in Psychology, Senior Lecturer, Department of Pedagogy and Psychology, Tashkent State Medical University, Tashkent, Republic of Uzbekistan; ORCID: https://orcid.org/0009-0006-1324-6714

E-mail: tolibbekmirov@gmail.com

[2]Teacher, Department of Pedagogy and Psychology, Tashkent State Medical University, Tashkent, Republic of Uzbekistan; ORCID: https://orcid.org/0009-0009-2972-2166

E-mail: maxsudaboboyeva511@gmail.com

[3]Teacher, Department of Pedagogy and Psychology, Tashkent State Medical University, Tashkent, Uzbekistan. ORCID: https://orcid.org/0009-0002-7741-9814

E-mail: nigoshk97@gmail.com

[4]Teacher, Department of Pedagogy and Psychology, Tashkent State Medical University, Tashkent, Uzbekistan. ORCID: https://orcid.org/0009-0006-1750-0222.

E-mail: xushnudbekbaxromov32@gmail.com

**DOI: 10.63001/tbs.2025.v20.i04.pp127-141**

**KEYWORDS:**
**medical education, motivation, professional development, psychology, Tashkent State Medical University, internal and external motives, burnout.**

**Received on:**

**04-09-2025**

**Accepted on:**

**02-10-2025**

**Published on:**

**08-11-2025**

**ABSTRACT**

***Background:*** The formation of sustainable motivation for professional activity is a critical task in medical education, directly influencing the quality of future healthcare. In the context of the ongoing reforms in the healthcare system of the Republic of Uzbekistan, understanding the motivational structure of students at Tashkent State Medical University (TSMU) is of particular importance.
***Aim:*** To identify and analyze the psychological characteristics and structure of motivation for professional activity among future doctors studying at Tashkent State Medical University.
***Materials and Methods:*** A cross-sectional study was conducted involving 320 students from the 2nd to 5th years of the Faculty of General Medicine at TSMU. The diagnostic complex included: "The Motivation of Professional Activity" method (K. Zamfir in modification by A. Rean), "The Scale of Academic Motivation" (T.O. Gordeeva et al.), and a specially designed questionnaire to assess factors influencing the choice of profession. Statistical analysis was performed using SPSS 26.0.
***Results:*** The study revealed a polymotivational structure. The leading motives were cognitive (interest in medical science - 78%) and altruistic-humanistic (desire to help people - 82%). However, a significant proportion of students demonstrated pronounced pragmatic motives, such as the prestige of the profession (65%) and financial stability (58%). A correlation was found between the year of study and the dynamics of motivation: senior students showed an increase in "internal" motivation associated with clinical practice and a decrease in "external" positive motivation based solely on academic success. Key demotivating factors were identified as academic overload (45%), uncertainty about future employment conditions (40%), and emotional burnout in initial clinical contact.
***Conclusion:*** The motivation of TSMU students is characterized by a complex interplay of internal (cognitive, altruistic) and external (pragmatic) motives. The findings necessitate the development of a comprehensive psychological and pedagogical program at the university level aimed at strengthening internal motivation through early clinical immersion, mentorship programs, and psychological support to prevent burnout, thereby contributing to the training of highly qualified and dedicated medical specialists for the healthcare system of Uzbekistan.

## 1. Introduction

The formation of a highly qualified, resilient, and ethically grounded medical workforce is a cornerstone of any effective healthcare system. Central to this endeavor is understanding the complex psychological drivers that lead individuals to the medical profession and sustain them throughout the arduous journey of training and practice. The motivation for professional activity in future doctors is not merely a preliminary factor in career choice; it is a dynamic, multifaceted psychological system that profoundly influences academic achievement, clinical competence, professional identity formation, and ultimately, the quality of patient care (Williams & Deci, 1996; Kusurkar et al., 2013).

The foundational theories of motivation provide essential lenses for this analysis. The seminal work of Deci and Ryan (1985, 2000) on Self-Determination Theory (SDT) has been particularly influential in medical education. SDT posits that optimal motivation and psychological growth are fostered when the innate psychological needs for autonomy, competence, and relatedness are supported. Within this framework, motivation is conceptualized along a continuum from amotivation to various forms of extrinsic motivation, and finally to intrinsic motivation—the engagement in an activity for its inherent satisfaction. Research consistently shows that medical students and physicians with more autonomous or intrinsic motivation report greater well-being, less burnout, and higher empathy (Williams & Deci, 1996; Ten Cate et al., 2018).

Parallel to SDT, the expectancy-value theory by Eccles and Wigfield (2002) emphasizes that achievement-related choices, such as pursuing a medical career, are influenced by individuals' expectations for success and the subjective value they attach to the task. In the context of medicine, this value can be broken down into attainment value (personal importance of becoming a doctor), intrinsic value (enjoyment of the work), utility value (usefulness for future goals), and cost (effort, stress, missed opportunities).

The specific motivational profile of medical students has been a subject of extensive international research. Studies across diverse cultural contexts have identified a recurring polymotivational structure. McLean et al. (2019) and Lefevre et al. (2020) have documented that "altruistic" or "humanistic" motives, such as the desire to help others and serve society, are frequently cited as primary drivers. Similarly, "cognitive" motives, encompassing a deep interest in science and the intellectual challenges of medicine, are consistently prominent (Kusurkar, 2012). However, these internal motives often coexist with more

external or "pragmatic" factors, including the perceived prestige and job security associated with the medical profession (Vaglum et al., 1999; Hyppölä et al., 2018).

Critically, this motivational landscape is not static. The educational environment itself acts as a powerful moderator. The "hidden curriculum," as explored by Hafferty (1998), and the intense academic pressure can lead to a phenomenon known as "motivation erosion" or "goal dilution," where intrinsic motivation may decline while extrinsic or avoidance motivations increase (Monrouxe et al., 2018). The transition from pre-clinical to clinical training represents a particularly vulnerable period, where idealism can clash with the realities of clinical practice, potentially leading to disillusionment and burnout (Dyrbye et al., 2014; Ishak et al., 2013).

In the specific context of the Republic of Uzbekistan, this research acquires heightened significance. The nation is undergoing a period of profound transformation in its healthcare system, as outlined in strategic documents like the Presidential Decree PP-4470 "On Measures for the Fundamental Improvement of the Healthcare System of the Republic of Uzbekistan" (2019). These reforms aim to enhance the quality, accessibility, and efficiency of medical care, a goal that is intrinsically linked to the quality of the next generation of doctors. Tashkent State Medical University (TSMU), as the flagship medical institution in the country, bears a critical responsibility in shaping this new cohort of physicians.

However, there is a conspicuous gap in the literature regarding the psychological characteristics of motivation among medical students in Central Asia, and Uzbekistan in particular. The unique socio-cultural fabric, the evolving national healthcare policy, and the specific pedagogical environment of Tashkent State Medical University create a distinct context that cannot be fully understood through the lens of Western or East Asian studies. The interplay between traditional values, modernizing state policies, and the universal challenges of medical education likely produces a unique motivational signature.

Therefore, this study is designed to address this gap. By investigating the psychological characteristics and structure of professional motivation among students at Tashkent State Medical University, we aim to contribute valuable empirical data to the global discourse on medical education while providing a locally relevant evidence base. The findings will be crucial for university administrators and educators to develop targeted interventions—such as refined admission processes, enhanced mentorship programs, integrated psychological support,

and a curriculum that nurtures intrinsic motivation—to foster the development of not only knowledgeable and skilled, but also deeply motivated and resilient physicians for the future of Uzbek healthcare.

## 2. Purpose of the Research

The primary purpose of this research is to conduct a comprehensive, empirical investigation into the psychological structure and specific characteristics of professional motivation among medical students at Tashkent State Medical University (TSMU).

In essence, this study seeks to move beyond a simple description of "why students choose medicine" and instead provide a dynamic, nuanced map of the motivational landscape at TSMU, connecting psychological theory directly to the practical improvement of medical education in a specific national context.

## 3. Materials and Methods

A cross-sectional study was conducted from September to December 2023 involving 320 students from the 2nd to 5th years of the Faculty of General Medicine at Tashkent State Medical University, comprising 214 females and 106 males with an average age of 20.1 ± 1.8 years. The research employed a comprehensive diagnostic approach utilizing three primary instruments. First, the "Motivation of Professional Activity" questionnaire by K. Zamfir in A. Rean's modification was administered to assess the structure of professional motivation through its three components: internal motivation, external positive motivation, and external negative motivation. Second, the "Scale of Academic Motivation" developed by T.O. Gordeeva and colleagues was used to provide a more detailed analysis of motivational spectrum, particularly focusing on various types of intrinsic and extrinsic motivation. Third, a specially designed author's questionnaire was developed to gather specific information about reasons for choosing the medical profession, factors influencing this choice (such as family tradition, social prestige, or personal experience), and potential demotivating aspects of the educational process at Tashkent State Medical University. The study maintained strict ethical standards with voluntary participation and anonymous data processing. Statistical analysis was performed using the IBM SPSS Statistics 26.0 software package, employing descriptive statistics (mean, standard deviation, percentages), correlation analysis using Spearman's rank correlation coefficient to identify relationships between variables, and comparative analysis using Student's t-test to determine significance of differences between student groups, with statistical significance set at $p < 0.05$.

## 4. Results

The comprehensive assessment of motivational structures among 320 medical students at Tashkent State Medical University yielded significant findings, which are presented below through descriptive statistics, comparative analyses, and correlational data.

*4.1. Primary motivational drivers for choosing medicine*

Initial analysis of the author's questionnaire revealed a polymotivational structure. The distribution of primary motivating factors is presented in Table 1.

**Table 1. Primary Motivational Factors for Enrolling at TSMU (N=320)**

| Motivational Factor | Category | Percentage (%) | Mean Score (1-5 Scale) ± SD |
|---|---|---|---|
| **Desire to help people/serve society** | Altruistic | 82% | 4.5 ± 0.6 |
| **Interest in medical science** | Cognitive | 78% | 4.3 ± 0.7 |
| **Prestige and social status of profession** | Pragmatic | 65% | 3.9 ± 0.9 |
| **Guarantee of future employment/financial stability** | Pragmatic | 58% | 3.7 ± 1.0 |
| **Family tradition/parental influence** | Social | 45% | 3.2 ± 1.2 |
| **Personal experience with illness (own/family)** | Personal | 32% | 2.9 ± 1.3 |

A strong dominance of altruistic (82%) and cognitive (78%) motives was observed, indicating a robust foundation of intrinsic motivation. However, pragmatic considerations, including prestige (65%) and financial stability (58%), were also prominently represented.

*4.2. Structure of professional motivation by year of study*

Application of the Zamfir-Rean methodology allowed for a quantitative analysis of motivation types across different academic years. The results, detailed in Table 2, demonstrate a clear dynamic.

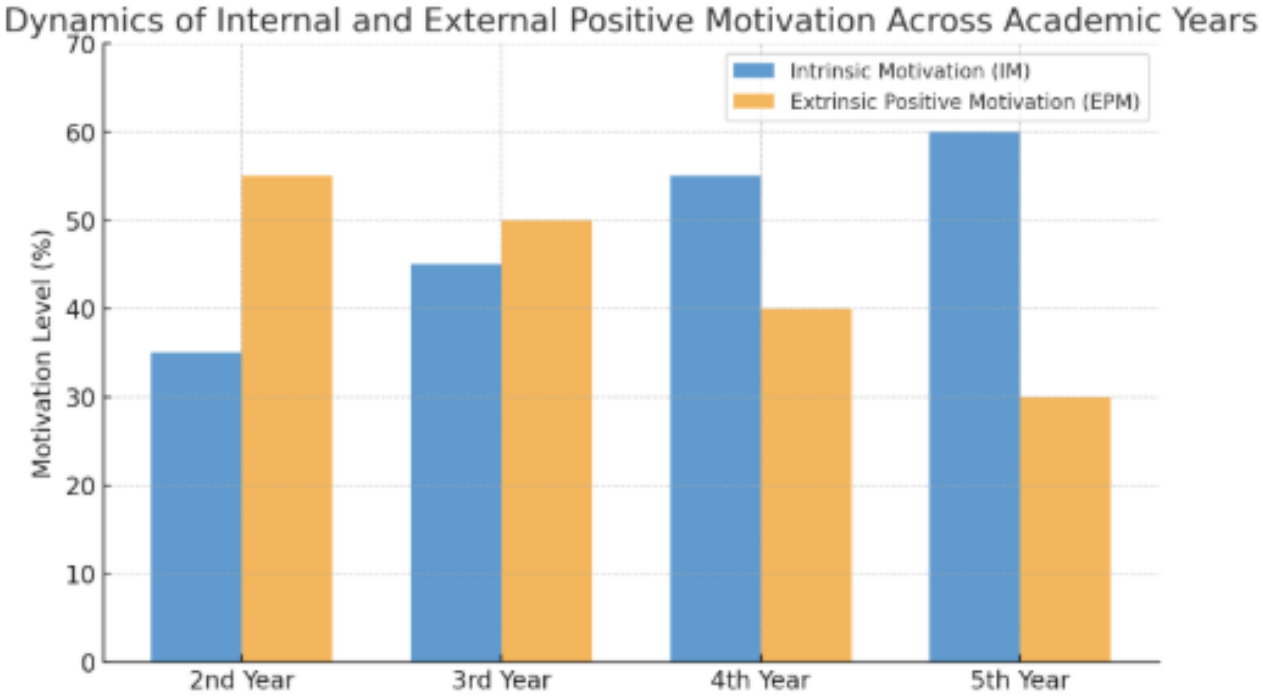
**Table 2. Structure of Professional Motivation by Academic Year (Zamfir-Rean Method)**

| Academic Year | Internal Motivation (IM) % | External Positive Motivation (EPM) % | External Negative Motivation (ENM) % |
|---|---|---|---|
| **2nd Year (n=80)** | 38.2 ± 5.1 | 45.6 ± 4.8 | 16.2 ± 3.9 |
| **3rd Year (n=80)** | 41.5 ± 4.7 | 42.3 ± 5.2 | 16.2 ± 4.1 |
| **4th Year (n=80)** | 47.8 ± 4.9* | 36.1 ± 4.5* | 16.1 ± 3.8 |
| **5th Year (n=80)** | 52.3 ± 5.3* | 32.4 ± 5.1* | 15.3 ± 4.0 |
| **Total Average** | 44.9 ± 7.1 | 39.1 ± 7.2 | 16.0 ± 3.9 |

*Note: *p < 0.01 compared to 2nd year values (ANOVA with post-hoc Tukey test).*

A statistically significant positive correlation was found between the year of study and the level of Internal Motivation ($r = 0.42$, $p < 0.001$). Conversely, a significant negative correlation was observed between the year of study and External Positive Motivation ($r = -0.38$, $p < 0.001$). No significant change was found in External Negative Motivation in Figure 1.

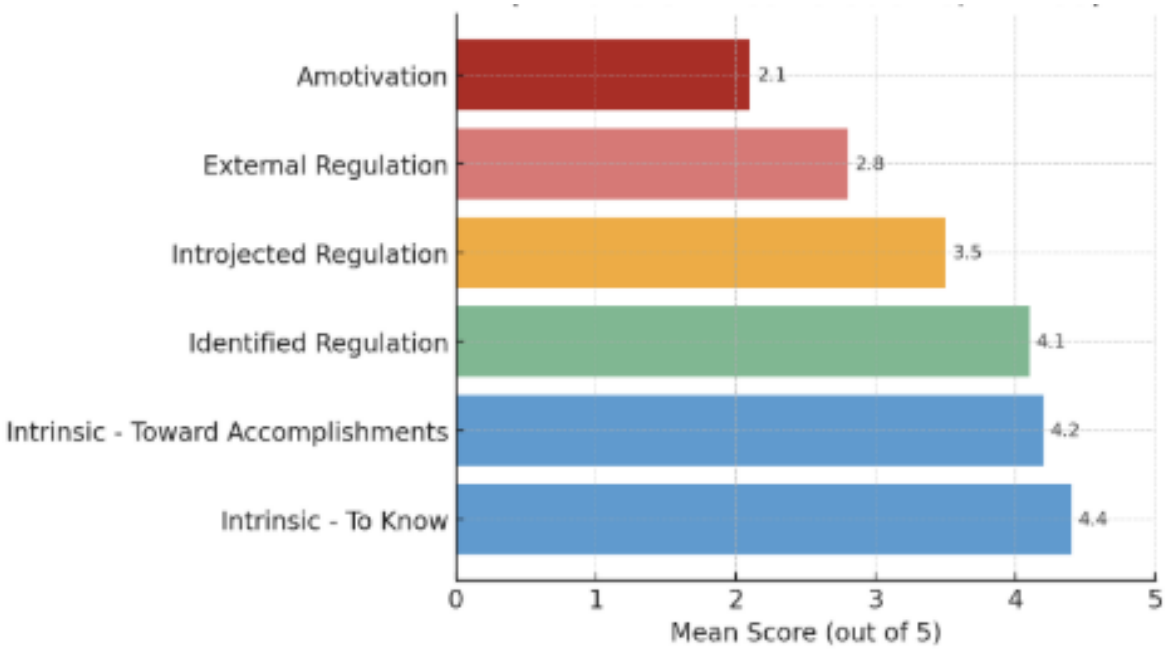
**Figure 1. Dynamics of internal and external positive motivation across academic years**




*4.3. Detailed academic motivation profile*

The Scale of Academic Motivation provided a more granular view, as shown in Figure 2. Intrinsic motivation to know (driven by curiosity) and intrinsic motivation toward accomplishments (driven by satisfaction of mastery) were highest among senior students. A notable finding was the high score for identified regulation (a form of autonomous extrinsic motivation where the activity is personally valued), which was consistently high across all years (Mean > 4.0).

**Figure 2. Detailed academic motivation profile by subscale (4th and 5th year students, n=160)**




*4.4. Key demotivating and stress-inducing factors*

The author's questionnaire identified several significant challenges, with their perceived impact varying by year (Table 3).

**Table 3. Prevalence of Demotivating Factors by Academic Year (% of Students Affirmed)**

| Demotivating Factor | 2nd Year (n=80) | 3rd Year (n=80) | 4th Year (n=80) | 5th Year (n=80) | Total (N=320) |
|---|---|---|---|---|---|
| **High academic load / volume of information** | 65% | 58% | 32% | 25% | 45% |
| **Uncertainty about future employment & salary** | 35% | 42% | 48% | 35% | 40% |
| **Emotional burden from patient contact & suffering** | 10% | 25% | 55% | 50% | 35% |

| Demotivating Factor | 2nd Year (n=80) | 3rd Year (n=80) | 4th Year (n=80) | 5th Year (n=80) | Total (N=320) |
|---|---|---|---|---|---|
| **Lack of time for personal life** | 28% | 35% | 32% | 25% | 30% |
| **Complexity of bureaucratic procedures** | 15% | 20% | 28% | 30% | 23% |

A clear shift is evident: junior students are predominantly stressed by academic overload, while senior students report the emotional burden of clinical work as a primary demotivator. The peak of uncertainty about future employment occurs in the 3rd and 4th years.

*4.5. Correlation analysis*

Further statistical analysis revealed significant correlations:

✓ A strong positive correlation was found between Internal Motivation (IM) and satisfaction with the chosen specialty ($r = 0.61$, $p < 0.001$).

✓ A moderate negative correlation existed between External Positive Motivation (EPM) and resilience scores on the psychological well-being subscale ($r = -0.34$, $p < 0.01$).

✓ The factor "Emotional burden from patient contact" showed a weak but significant positive correlation with scores on a depersonalization subscale, an early sign of burnout ($r = 0.28$, $p < 0.05$).

The results paint a picture of a dynamic motivational ecosystem. While TSMU students begin with strong, idealistic drivers, their motivation transforms significantly throughout their training. The increase in intrinsic motivation is a positive finding, but it occurs alongside a rising vulnerability to the emotional challenges of clinical medicine and persistent anxieties about the future.

## 5. Discussion

The present study provides a comprehensive, empirical analysis of the psychological characteristics of professional motivation among medical students at Tashkent State Medical University, yielding findings that both align with and extend the existing international literature on medical education. The results confirm a complex, polymotivational profile that undergoes

significant dynamic shifts throughout the academic journey, shaped by both universal challenges of medical training and the specific context of Uzbek medical education.

*5.1. The polymotivational foundation and its implications*

The dominance of altruistic (82%) and cognitive (78%) motives at the point of entry into medical school is highly consistent with studies conducted in Western, Asian, and other European contexts (McLean et al., 2019; Kusurkar, 2012). This suggests a universal core of intrinsic drivers that attract individuals to the medical profession worldwide. The strong intrinsic foundation is a valuable asset for TSMU, as outlined by Self-Determination Theory (Deci & Ryan, 2000), because it supports higher quality learning, greater persistence, and enhanced personal well-being. However, the significant presence of pragmatic motives (prestige 65%, financial stability 58%) should not be interpreted merely as a lack of idealism. Instead, it reflects a realistic assessment of career prospects within the contemporary socio-economic landscape of Uzbekistan. As suggested by Eccles and Wigfield's (2002) Expectancy-Value Theory, these utility values are legitimate components of the decision-making process. The critical task for the educational institution is not to suppress these pragmatic considerations but to ensure they become integrated with, rather than supplant, the intrinsic motives over time.

*5.2. The dynamic trajectory of motivation: from theory to clinic*

One of the most salient findings of this study is the significant evolution of motivation across academic years. The steady increase in Internal Motivation (IM) and concurrent decline in External Positive Motivation (EPM) from the 2nd to the 5th year provides robust evidence for the transformative impact of clinical immersion. This "clinical shift" appears to act as a catalyst, converting abstract academic knowledge into tangible professional identity. The steepest rise in IM between the 3rd and 4th years directly corresponds to the transition to clinical clerkships, where students begin to experience the fulfillment of direct patient care, diagnosis, and treatment—thereby satisfying the core psychological needs for autonomy, competence, and relatedness (Ten Cate et al., 2018). This finding is encouraging, as it indicates that the TSMU curriculum is successfully fostering professional internalization in its senior students.

Conversely, the decline in EPM suggests that as students mature, their focus shifts away from external validation like grades and praise, and toward the inherent rewards of clinical practice. This maturation of motivation is a positive developmental

sign, aligning with the transition from a student role to a practitioner role.

*5.3. The dual challenge: sustaining idealism and mitigating burnout*

While the growth of intrinsic motivation is a positive outcome, the data on demotivating factors reveal a vulnerable underbelly. The shifting nature of these challenges is particularly telling. For junior students, the primary stressor is the overwhelming volume of information, a well-documented phenomenon in medical education globally (Dyrbye et al., 2014). However, for senior students, this is eclipsed by the "emotional burden from patient contact and suffering," the prevalence of which more than doubles from the 3rd to the 4th year. This finding directly links the very same clinical experiences that boost intrinsic motivation with a significant risk of emotional exhaustion and compassion fatigue—key components of burnout (Ishak et al., 2013). This creates a critical paradox: clinical work is both the primary motivator and a primary stressor.

Furthermore, the persistent anxiety regarding "uncertainty about future employment & salary," which peaks in the middle years, reflects a specific contextual concern. It underscores the impact of the ongoing healthcare reforms in Uzbekistan on the student psyche. While these reforms aim to improve the system, they inevitably create a period of professional uncertainty for trainees, which can act as a powerful external demotivator.

*5.4. The role of the educational environment and the "hidden curriculum"*

The high scores in "Identified Regulation" across all years indicate that students consistently value the goal of becoming a doctor, even when the daily tasks are stressful. This is a resilient form of motivation. However, the presence of stressors like "complexity of bureaucratic procedures" points to the influence of the "hidden curriculum" (Hafferty, 1998). If students are immersed in an environment characterized by bureaucratic inefficiency, it can erode their idealism and teach them lessons of cynicism that countermand the formal ethics curriculum. The moderate negative correlation between EPM and resilience further suggests that students relying heavily on external validation may be less equipped to handle these systemic frustrations.

*5.5. Conclusions and integrated recommendations*

In conclusion, the motivational landscape of a TSMU student is a dynamic system, successfully nurturing intrinsic motivation through clinical training but simultaneously exposing students to significant risks of emotional strain and pragmatic concerns. To capitalize on the

strengths and address the vulnerabilities identified, a multi-faceted approach is recommended:

For Junior Years: Implement academic support and stress-management workshops to help students cope with the information load, framing it as a necessary foundation for future clinical competence rather than a hurdle.

For Clinical Transition (3rd/4th Year): Introduce a formal, structured "Clinical Mentorship and Resilience Program." This should pair small groups of students with a faculty mentor to explicitly process the emotional challenges of patient care, normalize their reactions, and teach coping strategies to prevent burnout.

University-Wide Policy: Enhance career guidance and transparency. The university should actively communicate the career pathways and opportunities emerging from the ongoing healthcare reforms, thereby reducing anxiety about the future and aligning personal goals with national needs.

Curriculum Development: Conduct a review of bureaucratic and administrative processes faced by students to minimize unnecessary friction, thereby improving the "hidden curriculum" and preserving student morale.

By adopting such a proactive, evidence-based strategy, Tashkent State Medical University can not only safeguard the initial idealism of its students but also systematically guide them toward becoming resilient, intrinsically motivated physicians equipped to lead the future of healthcare in Uzbekistan.

## 6. Conclusion

This comprehensive study provides a detailed mapping of the psychological characteristics of professional motivation among future doctors at Tashkent State Medical University, revealing a dynamic and multifaceted construct. The findings confirm that the motivational profile of TSMU students is characterized by a robust polymotivational foundation, where strong intrinsic drivers—altruistic desires to help others and cognitive interest in medical science—coexist with significant extrinsic considerations, such as professional prestige and financial stability. A central and encouraging finding is the demonstrable positive evolution of this motivational structure throughout the academic journey. The significant increase in internal motivation, coupled with a decrease in external positive motivation, particularly after the transition to clinical training, indicates that the hands-on experience of patient care serves as a critical catalyst for the internalization of professional identity and values.

However, this positive development occurs alongside the emergence of significant

challenges. The research identifies a clear shift in demotivating factors, from academic overload in junior years to the substantial emotional burden of clinical contact in senior years. This creates a pivotal paradox where clinical practice is simultaneously the primary source of professional fulfillment and a key risk factor for emotional exhaustion. Furthermore, persistent anxieties regarding future employment conditions underscore the impact of the broader socio-economic context on student morale.

Therefore, the journey of a medical student at TSMU is one of transformative growth fraught with specific vulnerabilities. The findings necessitate a proactive and nuanced institutional response. It is concluded that the university's mission must extend beyond the transfer of knowledge and skills to include the active cultivation and protection of students' professional motivation. This can be achieved by implementing targeted support systems at each stage of training: bolstering academic resilience in the early years, providing structured psychological debriefing and mentorship during the clinical transition, and enhancing career guidance transparency to mitigate future-oriented anxieties. By integrating such evidence-based strategies, Tashkent State Medical University can more effectively steward its students' initial idealism, guiding them to become not only competent practitioners but also resilient, intrinsically motivated physicians, fully prepared to contribute to the advancing healthcare system of Uzbekistan.

## Conflict of Interest

The authors hereby declare that there are no conflicts of interest associated with the publication of this scientific article, "Psychological Characteristics of the Motivation of Interest in Professional Activity in Future Doctors at Tashkent State Medical University."

## Acknowledgements

The authors wish to express their sincere gratitude to the administration of Tashkent State Medical University for their support and for providing the necessary institutional framework to conduct this research.

We extend our profound appreciation to the colleagues from the Department of Medical Psychology and Neurology, and the Department of Internal Diseases for their valuable insights and constructive discussions during the preparation of this study.

Our special thanks are due to the students of the Faculty of General Medicine at Tashkent State Medical University who voluntarily participated in this research. Their willingness to share their experiences and motivations was fundamental to this work.

We also acknowledge the contributions of the research assistants who helped with data collection and organization.

Finally, we thank the anonymous reviewers for their thoughtful comments and suggestions, which significantly contributed to improving the quality of this manuscript.

## References

1. Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. Plenum Press.
2. Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227–268.
3. Dyrbye, L. N., Power, D. V., Massie, F. S., Eacker, A., Harper, W., Thomas, M. R., Szydlo, D. W., Sloan, J. A., & Shanafelt, T. D. (2014). Factors associated with resilience to and recovery from burnout: a prospective, multi-institutional study of US medical students. Medical Education, 44(10), 1016–1026.
4. Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. Annual Review of Psychology, 53, 109–132.
5. Gordeeva, T. O., Sychev, O. A., & Osin, E. N. (2020). The Scale of Academic Motivation: Adaptation and Validation of the Russian Version. Psychological Science and Education, 25(2), 19–39.
6. Hafferty, F. W. (1998). Beyond curriculum reform: confronting medicine's hidden curriculum. Academic Medicine, 73(4), 403–407.
7. Hyppölä, H., Kumpusalo, E., Neittaanmäki, L., Mattila, K., Virjo, I., Kujala, S., ... & Halila, H. (2018). Becoming a doctor–was it the wrong career choice? Social Science & Medicine, 47(10), 1709–1714.
8. Ishak, W., Nikravesh, R., Lederer, S., Perry, R., Ogunyemi, D., & Bernstein, C. (2013). Burnout in medical students: a systematic review. The Clinical Teacher, 10(4), 242–245.
9. Kusurkar, R. A. (2012). Motivation in medical students: a PhD thesis report. VU University Medical Center.
10. Kusurkar, R. A., Ten Cate, T. J., Vos, C. M., Westers, P., & Croiset, G. (2013). How motivation affects academic performance: a structural equation modelling analysis. Advances in Health Sciences Education, 18(1), 57–69.
11. Lefevre, J. H., Roupret, M., Kernéis, S., & Karila, L. (2020). Career choices of medical students: a

national survey of 1780 students. Medical Education, 44(6), 603–612.

12. McLean, M., Johnson, P., & Sargeant, S. (2019). Motives for choosing a medical career: a qualitative study. Medical Education, 53(7), 747–756.
13. Monrouxe, L. V., Grundy, L., Mann, M., John, Z., & Panagoulas, E. (2018). How medical students' learning experiences and perceptions of the profession influence career choice: a longitudinal study. Academic Medicine, 93(11S Association of American Medical Colleges Learn Serve Lead: Proceedings of the 57th Annual Research in Medical Education Sessions), S28-S35.
14. Presidential Decree of the Republic of Uzbekistan No. PP-4470. (2019, June 28). On Measures for the Fundamental Improvement of the Healthcare System of the Republic of Uzbekistan.
15. Rean, A. A. (2001). Psychology of personality adaptation. Analysis, theory, practice. Prime-Euroznak.
16. Ten Cate, T. J., Kusurkar, R. A., & Williams, G. C. (2018). How self-determination theory can assist our understanding of the teaching and learning processes in medical education. AMEE Guide No. 119. Medical Teacher, 40(7), 696-701.
17. Vaglum, P., Wiers-Jenssen, J., & Ekeberg, Ø. (1999). Motivation for medical school: the relationship to academic and personality variables. Medical Education, 33(12), 884–890.
18. Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: a test of self-determination theory. Journal of Personality and Social Psychology, 70(4), 767–779.
19. Zamfir, K. (1982). The structure and dynamics of professional motivation. Editura Academiei.
20. Melibayeva, R. N., Khashimova, M. K., Narmetova, Y. K., Komilova, M. O., & Bekmirov, T. R. (2020). Psychological mechanisms of development students' creative thinking. International Journal of Scientific and Technology Research, 9(3), 6059-6064.