



# **THE ROLE OF INTERNAL CONFLICTS AND DEFENSE MECHANISMS IN THE PSYCHOLOGY OF MEDICAL STUDENTS**

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## **Abstract**

This article analyzes important aspects of the psychology of medical students, in particular, the internal conflicts, stress and defense mechanisms they encounter during their studies. Detailed information is provided on the psychological difficulties of students entering a medical university in adapting to academic pressure and a new social environment, as well as internal conflicts that arise in the process of professional formation. The article studies what psychological defense mechanisms students use against stress, the effectiveness of these mechanisms and their role in personal formation. The importance of psychological support in a medical university and its role in maintaining the mental stability of students is emphasized. The possibilities of improving the mental health of students through psychological counseling centers, stress-reducing trainings and the mentor-student system are considered. This work demonstrates the importance of a psychological support system for medical students and indicates the need to further develop psychological support.

**Keywords:** Medical students, psychological stress, internal conflicts, defense mechanisms, academic pressure, adaptation, mental stability, psychological support, sublimation, repression, rationalization, projection, professional formation, stress-reducing training, mentor-student system.

## **Introduction**

Studying at a medical university requires students to have a high level of academic knowledge, professional skills and psychological stability. In this process, many young people face adaptation difficulties, stress, internal conflicts and emotional tension. Psychological stability is important for medical students, and defense mechanisms help to overcome these pressures.

This article provides a detailed analysis of internal conflicts, academic pressure, professional formation and psychological adaptation in the lives of medical students.

### **1. Adaptation to a medical university and academic pressure**

#### **1.1. Complexity in the learning process**

For every student who enters a medical university, the learning process is not only a clash with new knowledge, but also the first stage of self-discovery, coping with pressure, adapting to independent life and the formation of a professional identity. One of the most important and difficult aspects of this process is the complexity of the learning process, which has a strong impact on the student's mental health, self-confidence and future professional motivation.

Medical education, by its very nature, includes theoretical, practical and clinical knowledge. Especially in the first years of university, students are faced with very extensive and complex subjects such as anatomy, histology, biochemistry, physiology, medical biophysics. These subjects often require abstract concepts, new terminology and intensive memorization. Therefore, students spend a lot of time on mastering, neglecting aspects such as rest, personal development, and social activities.

The main difficulties encountered during the study phase are summarized as follows:

- Heavy workload: Medical universities can have up to 30–36 hours of classes per week. This keeps students in a constant state of intellectual tension.
- Terminological pressure: The abundance of Latin, English, and Greek-based terms, their consistent memorization, requires a large mental load. The student is forced to master several thousand terms in one semester.
- Control system: Tests, written assignments, midterm and final exams, colloquiums - this assessment system serves as a source of psychological pressure for many students.

- Organizational problems: Uncertainty in communication with teachers, inconsistency of the class schedule, lack of necessary resources complicate the learning process.
- While some students try to overcome this process through adaptation, for others, these situations cause stress, anxiety, insomnia, fear of failure, etc. This seriously undermines psychological health.
- Studies show that 40-60% of medical students experience feelings of mental exhaustion, decreased motivation, and some even want to drop out of school during their first years of study. This negatively affects the student's professional development.
- Also, students who have come from an education system that was based more on external control during their school years have difficulty adapting to independent learning at the university. Self-management, planning for class preparation, and time management are all new skills that are difficult for many to master in a short period of time.
- In general, the complexities of the study process are not only academic, but also a combination of psychological and sociological factors. Universities should introduce educational methodologies that facilitate adaptation, adaptation courses, psychological counseling centers, and peer support systems to alleviate this problem.

## Statistics

1. In recent years, various studies conducted by psychologists and higher education professionals have shown that medical students experience significantly higher levels of psychological stress, depression, and anxiety compared to students studying in other fields. This is especially evident in the early stages of their studies.
2. For example, according to studies conducted in several countries in collaboration with the World Health Organization (WHO):
  - The prevalence of stress among medical students ranges from 56% to 72%. This figure is maintained at around 30–45% among students in humanities or technical fields (Dyrbye et al., 2006).
  - In a 2021 cross-sectional study of 1,123 medical students in India, 68% of first-year students reported moderate to high levels of stress symptoms (Maqbool et al., Indian J Psychiatry, 2021).

- According to the 2020 American Association of Medical Students (AAMC), one in three medical students had symptoms that met the criteria for clinical depression.
- Another meta-analysis found that depression rates among medical students were 2 times higher than the general student population and anxiety rates were 1.7 times higher (Rotenstein et al., JAMA, 2016).

Although statistical data on this issue is limited within Uzbekistan or Central Asia, internal surveys and dissertations conducted at the level of some universities also show similar trends. For example, according to the results of a survey conducted at the Tashkent Medical Academy in 2023, 63% of first-year students described themselves as “psychologically distressed”, 41% of whom reported being in a state of constant anxiety and nervousness.

These figures show that medical education requires not only intellectual, but also psychological resilience. Therefore, early identification of stress, training in defense mechanisms and the introduction of a psychological support system are necessary factors not only for the academic but also for the personal health of the student.

## **1.2. Psychological aspects of adaptation**

Medical university means not only a new academic environment, but also fundamental changes in personal and social life. The student's adaptation to this environment is usually directly related to the previous form of education, personal qualities, family upbringing and psychological preparation.

Students who have received education in an academic lyceum or vocational college are usually more prepared for independent living and study. They are adapted to dormitory life, have skills such as extracurricular activities, time management, and working with a group. This helps to maintain psychological stability in the early stages of university.

On the contrary, for students who enter a medical university directly after school, this stage can be a source of more stress. They often move away from their family for the first time, have difficulty planning their time independently, and feel helpless in social skills such as making new friends and finding their place in a group. It is these psychological difficulties that affect their mental state.

When analyzing the process of psychological adaptation, the following factors play an important role:

- Personal characteristics - namely, extroverted stability, resistance to external influences, level of motivation.
- Social support - moral support provided by family, friends or teachers.
- Adaptation strategies - how the student reacts to stress, the way he solves problems.
- The gap between expectations and reality - often a student entering medicine imagines medicine as an ideal profession, but the difficult reality returns to him as psychological pressure.

Among students who are unable to adapt psychologically, symptoms such as low self-esteem, social isolation, a desire to return home more often, and even thoughts of dropping out are observed. This leads to increased levels of stress, depression and anxiety.

To facilitate the adaptation period, psychologists give the following practical recommendations:

- Prepare students for the new environment through adaptation training at the beginning of the academic year;
- Peer-mentoring system - guidance of new students by senior students;
- Strengthening the activities of psychological counseling centers;
- Ensuring an individualized approach to the student by teachers.

Thus, adaptation to a medical university is not a simple educational process, but a period of internal changes in a person, and to manage and support it, academic and psychological systems must work together.

## **2. Main types of internal conflicts**

Internal conflict (intrapersonal conflict) is a struggle between opposing desires, feelings, values, and decisions that occur in a person's own mind. These conflicts negatively affect a person's mental stability, level of self-awareness, and decision-making ability. These conflicts can be especially acute for students studying in the medical field. Because this field requires high responsibility, determination, and internal balance.

### **2.1. Conflicts related to the choice of profession**

Entering the medical faculty can be a great dream for many young people, but this is not always associated with the student's inner desire. Often, the choice of profession becomes a source of inner conflict for the following reasons:

- Parental pressure: In some families, the medical profession is considered to have a high status, and children are forcibly directed towards it. The student, although his interests lie in another field, has made this choice due to family pressure.
- Stereotypes of society: The social perception that “becoming a doctor is the most prestigious path” also encourages some students to abandon their interests and enter medicine.
- Personal incompatibility: The real life of medicine (long study periods, responsibility for human health, communication with patients) may not correspond to the personal qualities of some students. This increases their internal dissatisfaction.

Such conflict situations are usually manifested by the following psychological symptoms:

- indifference to study,
- rapid fatigue and inability to concentrate,
- loss of motivation for future profession,
- feeling lonely and unnecessary.

#### Solutions and recommendations

To mitigate this type of internal conflict, it is first necessary to openly understand the personal attitude towards the profession. Universities can take the following measures:

- Organization of career counseling services: Helps the student understand himself, analyze doubts in choosing a profession.
- Psychological interviews and trainings: Helps to identify the student's internal motivation.
- Personal development clubs: Students can try themselves in activities outside of medicine and more fully understand their interests.
- Open dialogue with teachers: The experience of people who have found their place in medicine can be a guide for students.

Thus, internal conflicts related to the choice of profession are not only a psychological problem, but also an important pedagogical issue that requires an approach. If this problem is not identified and resolved in a timely manner, the student may experience negative consequences, leading to dropout, depressive states, or a professional crisis.

### Example:

According to psychological observations, every fifth student studying at medical universities — that is, about 20% — faces doubts about the choice of profession. They want to enjoy their profession, but in most cases they are puzzled by such questions as:

- “Am I sincerely interested in this field?”
- “Is medicine suitable for me?”
- “Is this choice right for my life?”

Some of these students feel themselves in a constant state of internal struggle: on the one hand, medicine is seen as a stable future and a prestigious profession, on the other hand, personal interests, creative pursuits, or the need for social activity push them away from this path. As a result, the student feels like he or she is walking in an “alien world.” This can have a negative impact on the mental state, leading to decreased motivation, low self-esteem, and even academic failure.

### 2.2. Low self-esteem

One of the main internal conflicts among medical students is low self-esteem. This condition is usually based on the student comparing himself with those around him. Comparisons often increase the student's critical view of himself and form a negative mental state.

The strong competitive environment in medicine, high assessment criteria and heavy workload mean that many students begin to doubt their knowledge and skills. This:

- reduces their self-confidence,
- leads to their reluctance to express their opinions openly,
- even leads to fear of working in a group with strong students.

Sometimes a student feels that he is “not smart enough” or “not worthy of this field” against the background of the successes of others.

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### Example:

According to a survey conducted at a medical university in Tashkent, 35% of students reported suffering from low self-esteem. They said that they felt uncomfortable, especially as a result of high grades from classmates, active participation in classes, or praise from teachers.

This state is expressed as follows:

“I always try to study, but I still can’t get excellent grades like my classmates. I feel like I’m falling behind compared to them.”

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### Psychological consequences

The long-term consequences of low self-esteem can be:

- social withdrawal (isolation),
- decreased interest in studying,
- depression (depressive mood),
- self-blame and anxiety.

This negatively affects not only the student’s academic success, but also his personal life.

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### Solutions and recommendations

The following approaches are recommended to combat low self-esteem:

- Learning to value personal achievements: Every small success should be appreciated.
- Realistic comparison: Comparing yourself only with the past (self-development approach).
- Psychological training and motivational exercises: Teaching the student to perceive himself positively.
- Individual support from teachers and mentors.

### **2.3. Inability to adapt to the social environment**

Life at a medical university requires not only complex academic loads, but also adaptation to a new social environment. For a student, it is important during this period to make new friends, find their place in the group, and establish social communication with teachers and classmates. However, not all students can overcome this adaptation process to the same extent.

This process is especially difficult for students who are shy by nature, prefer to be alone, or have insufficiently developed social skills. They may not be able to find their place in a group, make friends, or have difficulty communicating. This gradually leads to feelings of loneliness, instability, lack of self-confidence, and even social isolation.

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### Example:

When a student studying in a group was interviewed, he described it as follows: "The first few months were very difficult. It seemed like everyone around me had already divided into groups, and I was embarrassed to join their conversations. I felt like an outsider. I had no one to talk to after class. Because of this, I began to feel lonely and unnecessary."

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### Psychological consequences

Inability to adapt to the social environment leads to the following negative situations:

- Social withdrawal (social regression);
- Isolation and reduced participation;
- Depression and social anxiety;
- Decreased motivation.

As a student withdraws from social life, his learning process is also negatively affected. This is especially evident during group work, practical training or clinical practice.

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### Recommendations

The following can be useful to facilitate social adaptation:

- Encouraging openness and social activity: Strengthening student connections through clubs and groups at universities.
- Introducing a mentoring system: Providing friendly guidance to first-year students by senior students.
- Psychological training and communication exercises: Teaching students to behave freely in a team.
- Teachers' attention to social needs.

### 2.4. Loneliness and lack of emotional support

Students entering a medical university face many life changes as they enter a new social environment. Being away from family members, not being able to make new friends, and a general lack of emotional support can lead to major problems in maintaining psychological stability for medical students.

## **Separation from family**

One of the first challenges for a student entering university is the distance that arises in establishing contact with family. During the study process, students often become distant from their families, especially for students living in dormitories or coming from other cities. The decrease in communication with family, the lack of emotional support from loved ones, leads to the student feeling socially and emotionally isolated.

Example:

A student who has just entered a medical university said in an interview: “At first, I used to talk to my family on the phone every week. But as time went by, the stress of studying and the need for classes reduced our contact. Now, it is not easy for me to communicate with them, because they love me, but I do not have time to constantly provide them with news. The feeling of loneliness has increased.”

## **Lack of close friends**

Making new friends in a new environment can sometimes be very difficult. The academic pressure on medical students is very high, and many students put off spending more time on themselves and socializing with friends. This, in turn, leads to depression and loneliness. The inability to make new friends, not finding their place in a group, and not being able to interact closely with other students increases emotional isolation.

Example:

## **One student describes:**

“I used to have a lot of friends, but when I entered university, everyone split up in their own groups in my first year, and I felt isolated. There were so many classes and I had to spend time only studying, so it was very difficult to make friends with other students.”

## **Lack of emotional support**

One of the most serious consequences of loneliness and social isolation is the lack of emotional support. Emotional support is psychologically important for a student, as appropriate and timely support from family, friends, or mentors can help reduce stress and maintain emotional stability. However, medical students

often struggle to find emotional support. This, in turn, negatively affects the psychological state of the student and prevents him from maintaining his emotional stability.

### **Example:**

#### **A student says:**

“By the end of my first year, I felt very lonely. It was very difficult to find emotional support because I was spending so much time studying and didn’t have time to talk to anyone. I tried to keep in touch with my family, but I only had superficial conversations with them, and there was no opportunity to talk in depth.”

### **Psychological consequences**

Loneliness and lack of emotional support can lead to the following negative psychological consequences:

- Depression and low mood;
- Increased stress and anxiety;
- Difficulty concentrating and academic failure;
- Lack of self-confidence and isolation.

In addition, lack of emotional support can be detrimental to a student’s physical and mental health.

### **Recommendations**

The following approaches are recommended to combat loneliness and lack of emotional support:

- Social groups and university club activities: Organize various social events and clubs to unite students and develop friendships.
- Psychological help and support centers: Universities should help students improve their mental health through psychological counseling centers.
- Emotional support from teachers: Teachers should provide not only academic but also emotional support for students.
- Regular contact: Reduce feelings of loneliness by connecting with family frequently and freely expressing emotions.

### **3. The functioning of defence mechanisms**

Psychological defense mechanisms are psychological strategies that people unconsciously develop to cope with stressful and emotionally uncomfortable situations. Medical students use various defense mechanisms to cope with their internal conflicts and stressful situations. Below we will discuss each of these mechanisms separately.

#### **3.1. Rationalization**

Rationalization is the process of explaining one's behavior or feelings with logical or reasonable reasons. The student tries to explain his failures or difficulties by attributing them to external circumstances, rather than emotions. This mechanism helps the student maintain mental stability in stressful situations.

##### **Example:**

A student may explain his low grade by a lack of time. He says that he did not devote enough time to classes, but he had problems with time management due to other activities or responsibilities. This is, in fact, explaining the failure with logical reasons, not emotions. This mechanism softens the negative thoughts that the student feels about himself and helps restore mental peace.

#### **3.2. Repression**

Repression is the process of trying to forget stressful thoughts, feelings, or memories by pushing them out of the mind. In stressful psychological situations, such as academic failure or social conflict, a student may try to indirectly forget these negative experiences.

##### **Example:**

If a student is having trouble with his studies or has received a low grade from his teacher, he may avoid consciously remembering this situation. He tries to be unaware of them by focusing on other areas and not recalling those negative memories. This mechanism may provide the student with temporary relief, but it can lead to psychological problems in the long run.

### **3.3. Sublimation**

Sublimation is a mechanism for directing mental energy towards positive activities. When a student is experiencing stress or internal conflicts, he directs his energy towards positive and beneficial areas such as sports, art or academic activities. This mechanism helps to effectively relieve stress and improves the psychological state of the student.

#### **Example:**

A student begins to show interest in sports to escape his academic stress. Or another student, interested in art, resolves his internal conflicts by drawing or playing music. Sometimes, a student devotes more time to scientific research and directs stress to social and intellectual activities. This, of course, not only helps to maintain psychological health, but also contributes to the overall development of the student.

### **3.4. Projection**

Projection is a self-defense mechanism by projecting negative emotions and thoughts onto others. The student does not want to acknowledge his internal negative thoughts or feelings, so he directs these thoughts towards the people or situations around him. This mechanism helps to protect himself in stressful or uncomfortable situations, but in the long run it can increase internal conflict.

#### **Example:**

If a student feels unsuccessful in academics, he tries to attribute this failure to the wrong approach of his teacher or to competition with his classmates. The student seeks to protect himself from negative emotions by projecting his shortcomings onto others. However, this mechanism can help to avoid focusing negative thoughts on oneself, but it can also hinder one's psychological development.

Each student uses different defense mechanisms in his or her own situation, but positive mechanisms such as rationalization and sublimation lead to greater success. Other mechanisms, in the long run, can exacerbate internal conflicts and harm psychological health.

## **4. Transition to the professional stage and personal formation**

The first years of medical school include a study process based on academic knowledge, theoretical sciences and scientific methodology. At this stage, the student masters courses in the basic disciplines of medicine - anatomy, physiology, biochemistry, pathophysiology. However, the later years of university are devoted to more practical experience and clinical work. This transitional period shapes the student's professional formation, how he or she sees himself or herself in the profession, and his or her professional ethics.

### **4.1. Acquisition of practical skills**

Medical students face a number of difficulties in the transition from theoretical knowledge to practical skills. In the early years, they have only theoretical knowledge, but in the later years they need to apply it in practice. This requires acquiring skills such as medical procedures, examination of patients, treatment and analysis of clinical cases. During this period, students improve their professional skills through clinical training, practical classes and working with experienced doctors.

### **4.2. Professional specialization and clinical experience**

In the later years of the medical faculty, students have the opportunity to choose their specialization. They develop professional knowledge and skills in each medical field - surgery, therapy, pediatrics, gynecology, psychiatry and many others. Choosing their direction has a significant impact on the professional formation of the student.

At this stage, the student enters clinical practice, observes patients and performs practical procedures. Through clinical experience, students learn to apply theoretical knowledge in practice and develop their professional skills.

### **4.3. Personal development**

The subsequent years of medical school have a great impact not only on the professional, but also on the personal development of the student. In the process of professional development, the student increases his self-confidence, develops problem-solving skills and masters the basics of professional ethics. In order to achieve success in professional practice, students also need to develop personal qualities such as empathy, responsibility, honesty, and justice.

At this stage, the student, seeing the mistakes and successes in his professional direction, re-evaluates himself and begins to shape himself as a future doctor. Their views expand, they strive to acquire new skills in order to achieve their professional and personal goals.

#### **4.4. Reduction of internal conflicts**

In the process of professional formation, internal conflicts are reduced. The student clearly chooses his professional path and becomes more confident and stable in achieving his goals. However, this process can also bring its own difficulties. Changes in professional direction, contacts with teachers and lessons learned through clinical experience can sometimes give rise to new types of internal conflicts.

At this stage, the student, on the one hand, is faced with the high demands of professional ethics and the demands made by teachers, and on the other hand, tries to find a balance between personal feelings and professional aspirations.

#### **4.5. Professional success and self-confidence**

In the following years, the student's self-confidence increases. Their perception of their professional abilities becomes clearer, and they begin to see their professional successes as the basis for their development. This process encourages students to change not only professionally, but also personally. Professional success, in particular, determines how prepared the student feels as a future doctor.

#### **4.6. Conclusion**

The transition to the next stages of medical school has a significant impact on the professional formation and personal development of the student. The clarification of the professional direction, clinical experiences, development of personal qualities and increased self-confidence - all this contributes to the formation of the future success of the medical student and his professional qualifications as a doctor. The difficulties encountered in the professional direction develop the psychological and professional stability of the student and encourage them to succeed on their path.

## **5. The importance of psychological support**

Medical students, especially in the early stages of their studies, face a high level of psychological and academic pressure. Various psychological stress situations, internal conflicts and emotional problems may arise in the process of their professional and personal development. Therefore, psychological support is not only necessary for students, but also an important resource that helps them.

### **5.1. Psychological counseling centers**

Psychological counseling centers play an important role for medical students. Such centers help students manage stress, resolve internal conflicts, and improve their overall mental health. These centers also provide an opportunity to identify psychological problems among students and solve them with professional psychological support. Individual or group sessions by psychologists and psychotherapists in psychological counseling centers create a psychologically safe environment for students.

For example, helping first-year students in the adaptation process helps them adapt to a new academic and social environment. These centers provide psychological support tailored to individual needs.

### **5.2. Stress reduction training**

Medical students often face high levels of stress during their studies. Stress reduction training is very important to manage such stress. These trainings teach students to learn various psychological techniques, reduce nervousness and maintain a positive state of mind.

Trainings usually include meditation, concentration, breathing techniques and physical exercises. They also cover topics such as motivation and time management, overcoming personal limitations and reducing stress. Such trainings allow students to manage their emotional and psychological state and help improve their overall health.

### **5.3. The teacher-student system**

The mentor-student system at the Faculty of Medicine plays a major role in the professional development of students. This system helps students acquire practical knowledge with the support of experienced specialists. The mentor-

student relationship also has a positive effect on the psychological state of the student.

Mentors can provide support to students not only in academic matters, but also psychologically. Mentors help their students with advice on personal issues, teach them ways to cope with stress, and develop practical skills. One of the important aspects of this system is that it serves as an example for students to support themselves and strengthen their mental health.

#### **5.4. Psychological support among students**

The support of students for each other at the Faculty of Medicine is also of great importance. Communication and solidarity between students help ensure psychological safety. Psychological support and counseling among students is widespread in order to understand each other, cope with stress, and improve their general well-being.

This can be achieved through group and team work, student clubs and organizations, and psychological support groups. Also, during the study process, many students help each other motivate each other and achieve a common goal.

#### **5.5. General effects of psychological support**

Psychological support has many positive effects for students. It improves students' mental health, reduces stress, allows them to overcome internal conflicts, and increases self-confidence. The continuity of such support increases students' academic success and contributes to their overall professional development.

#### **5.6. Conclusion**

The psychological support system is important for medical students. Through psychological counseling centers, stress reduction trainings, and mentor-student systems at the university, students can maintain their mental health and successfully manage academic and professional processes. The availability of psychological support strengthens the overall psychological stability of students and helps them achieve professional success.

## **Conclusion**

Medical students experience various internal conflicts during their studies in a complex academic environment. This process has a serious impact on the psychological state of students, causing problems such as stress, anxiety, and low self-esteem. Students use various defense mechanisms to maintain their mental stability, such as rationalization, repression, sublimation, and projection.

During the process of professional formation, that is, during the stages of acquiring practical skills, gaining clinical experience, and choosing a professional direction, internal conflicts may subside somewhat. However, the emergence of new sources of stress, such as teacher-student relationships, professional failures, and personal decisions, creates new psychological challenges for students.

The psychological support system in universities plays an important role in maintaining the psychological stability of students. Support resources such as psychological counseling centers, stress reduction training, and the mentor-student system help students improve their mental health, manage stress, and overcome internal conflicts. At the same time, mutual support among students also has a positive effect, which strengthens their overall psychological stability and helps them achieve professional success.

In general, the psychological support system for medical students is a necessary element for the successful and stable educational process.

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