

# Comparative characteristics of the influence of autoerotic practice on the development of psychoemotional disorders among young people on the example of medical students of the National Pirogov Memorial Medical University, Vinnytsya

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Autoerotism is the practice of sexual stimulation. The most common autoerotic practice is masturbation, and these two terms are often used interchangeably, although masturbation can also occur with a partner. Recent data from the European Study on Aging Men have shown that masturbation is an independent indicator in the overall global assessment of sexual health.

Masturbation has long been ostracized and considered a moral sin by several religions such as Judaism, Islam, and Christianity. Traditionally, such sexual behavior has been associated with many diseases, such as madness, seizures, blindness and even impotence. Today, masturbation is no longer considered a harmful habit, as it can even help to protect people from the risk of sexually transmitted diseases.

*The objective:* to study the relationship between the influence of malakia and the development of psychoemotional disorders in young people using the example of medical students of the 4th–5th years of the National Pirogov Memorial Medical University.

*Materials and methods.* A clinical and psychological examination of 1118 medical students was carried out using the screening scales “Patient Health Questionnaire” (PHQ-9) and the questionnaire “General Anxiety Disorder-7” (GAD-7).

Domestic and foreign students were divided into two groups based on their attitude to masturbation and its application in everyday life. Namely: on those who have a positive attitude to this type of self-pleasure, and on those who consider it absolutely unacceptable. The levels of anxiety and depressive disorders in both groups of respondents were determined and then compared.

*Results.* It was established that 19.3% of domestic students and 31.2% of foreign respondents do not have anxiety disorders. Among domestic sexually active students, a mild degree of anxiety prevails (44.4%), a moderate degree is found in 26%, and a severe degree – in 10.4%. Among virgin domestic students, a mild degree of anxiety prevails, which is found in 46.6% of respondents, a medium degree in 20%, and a severe degree in 13.4%.

Among sexually active foreign students, mild anxiety disorder was most common in 34.7% of cases, moderate in 15.4% of cases, and severe in 13.8%. Among virgin foreign students, 34.5% have a mild degree of anxiety, 21.4% have a medium degree, and 17.8% have a severe degree of anxiety.

No influence of masturbation on the development of depressive disorders in medical students was found ( $X^2=1.41$ ;  $p \geq 0.05$ ), but it was found that autoerotic practice affects their anxiety level ( $X^2=6.37$ ;  $p < 0.05$ ).

*Conclusions.* Autoerotic practice does not have a significant impact on the development of depressive disorders. Instead, malakia was found to significantly reduce anxiety disorders in both sexually active and inactive young adults.

*Keywords:* autoerotic practice, masturbation, onanism, emotional disorders, medical students.

## Порівняльна характеристика впливу аутоеротичної практики на розвиток психоемоційних розладів у молоді на прикладі студентів-медиків Вінницького національного медичного університету ім. М. І. Пирогова

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Аутоеротизм – це практика сексуальної стимуляції. Найбільш поширеною аутоеротичною практикою є мастурбація, і ці два терміни часто використовують як синоніми, хоча мастурбація також може відбуватися з партнером. Останні дані Європейського дослідження старіння людини засвідчили, що мастурбація є незалежним показником у загальному глобальному оцінюванні сексуального здоров'я.

Мастурбація протягом тривалого часу була піддана остракізму та сприймалася як моральний гріх кількома релігіями, такими, як іудаїзм, іслам та християнство. Традиційно з такою сексуальною поведінкою пов'язують безліч хвороб, таких, як божевілля, напади, сліпота і навіть імпотенція. Сьогодні мастурбація більше не вважається негативною звичкою, оскільки вона може навіть допомогти захистити людей від ризику захворювань, що передаються статевим шляхом.

**Мета дослідження:** вивчення взаємозв'язку впливу малакії та розвитку психоемоційних розладів у молоді на прикладі студентів-медиків 4–5-го курсів Вінницького національного медичного університету.

**Матеріали та методи.** Проведено клініко-психологічне обстеження 1118 студентів-медиків за допомогою скринінгових шкал «Patient Health Questionnaire» (PHQ-9) та опитувальника «General Anxiety Disorder-7» (GAD-7). Вітчизняних та іноземних студентів було розподілено на дві групи по ставленню до мастурбації та її застосуванню у повсякденному житті. А саме: на тих, хто позитивно ставиться до даного виду самозадоволення, та на тих, хто вважає це абсолютно неприйнятним. Були визначені рівні тривожності та депресивних розладів в обох групах респондентів з подальшим їх порівнянням.

**Результати.** Установлено, що 19,3% вітчизняних студентів і 31,2% іноземних респондентів не мають проявів тривожних розладів. Серед вітчизняних сексуально активних студентів переважає легкий ступінь тривожності (44,4%), помірний ступінь виявлено у 26%, тяжкий ступінь – у 10,4%. Серед незайманих вітчизняних студентів також переважає легкий ступінь тривожності, який встановлений у 46,6% респондентів, середній ступінь – у 20%, тяжкий ступінь – у 13,4%. Серед сексуально активних іноземних студентів найпоширенішим був легкий ступінь тривожного розладу – у 34,7%, середній ступінь – у 15,4% випадків і тяжкий ступінь – у 13,8%. Серед незайманих іноземних студентів легкий ступінь тривожності встановлений у 34,5% осіб, середній ступінь – у 21,4%, тяжкий ступінь – у 17,8%.

Не встановлено впливу мастурбації на розвиток депресивних розладів у студентів-медиків ( $X^2=1,41$ ;  $p \geq 0,05$ ), але виявлено, що аутоеротична практика впливає на рівень тривожності у них ( $X^2=6,37$ ;  $p < 0,05$ ).

**Висновки.** Аутоеротична практика не має значного впливу на розвиток депресивних розладів. Натомість було встановлено, що малакія значно зменшує тривожні розлади як серед сексуально активних, так і серед неактивних молодих людей.

**Ключові слова:** аутоеротична практика, мастурбація, онанізм, емоційні розлади, студенти-медики.

Over the past decade, views on sex education have become even more contradictory. Everyone agrees on the need to develop in children the right attitude toward sexual matters, but everyone has their own opinion about what should be trained, where, and who should do it [1]. Children are born sexually motivated, and their parents constantly give them sex education lessons, knowingly or unknowingly.

The core issue of sex education is how parents perceive their child's innate sexuality and to what extent they turn it around. The attitude of parents toward this problem is much more important for the formation of a child's sexual behavior than all the information or misinformation they can provide on this matter [2–4]. C. G. Ehrenberg (1988) also described four main types of parents' attitudes toward gender issues that manifest themselves in family life, calling them respectively repressive, avoidant, obsessive, and expressive [5–7].

The repressive type of attitude covers cases when parents strictly teach children that sex is evil and obscene. Usually, in such a family, it is forbidden to pronounce obscene words, make double-meaning jokes, or walk around the house in your underwear. Sexual parenting comes down to a few phrases: «This is indecent», «This is dangerous», and «Wait until you get married». With the avoidant type, parents show a more reasonable and tolerant attitude towards sexuality. Such parents do not discuss this topic with their children.

Without knowing it, they emasculate the ideas of warmth, humanity, and love, which are integral to the concept of sexuality. With an obsessive type of attitude towards sexuality, parents look at sex as a useful and healthy phenomenon, but they go too far and put sex at the center of the whole family's life. They flaunt their sex lives, which hurts their own children. Excessive attention to sexual matters can irritate children or make them feel depressed [8, 9].

Excessive attention to sexual matters can irritate children or make them feel depressed [10]. A. Kinsey, in 1953, tried to explain that sexuality is a healthy phenomenon, but without sublimation, he established pronounced dif-

ferences in the frequency of masturbation in adolescent boys and girls. According to them, 82% of boys engage in masturbation ending in orgasm; among girls, it is 20%. Sorenson S. in 1973 showed that 39% of girls and 58% of boys are engaged in masturbation in adolescence; among 20-year-old boys and girls, these figures are increasing up to 85 and 60%, respectively. Consequently, over the past decades, there has been a trend towards an increase in the frequency of masturbation among women [11–13].

Since the end of the 20th century, sex education lessons have been conducted in the USA and Europe by such scientists as G. Cvetkovitch, R. Grote (1983), G. Dempsey (1988), G. Sandoval (1988), and D. A. Kirby et al. (1989). Unfortunately, there is no such formation on the territory of our state [14–16].

The importance of sexual education is vividly described by many authors around the world, especially at the beginning of the 21st century. However, young people do not receive adequate information. In particular, we would like to draw attention to the importance and necessity of autoerotic practice among teenagers. After studying the topic of masturbation in more detail, we drew attention to the struggle of parents against masturbation [17–20].

Today, there is a special device: an anti-masturbation cross. The Anti-Masturbation Cross is a satirical furniture product designed to restrain a child on a crucifix-shaped board to prevent masturbation. According to the instructions of the Anti-Masturbation Cross, it safely trains children to keep their hands off their sin zones. A child after 5 years is fixed on this device for the whole night due to the ability to move and turn in different directions. The manufacturer claims the high efficiency of this device in the fight against masturbation in childhood [21].

Unfortunately, anti-masturbation crosses are in demand all over the world. Many parents buy this device so that the child does not touch his genitals, does not explore them, and does not get any sensations in general. Proponents of this method explain it through religious preferences, proper upbringing, and abstinence from sexual life until marriage. As we know, the study of the genitals in childhood is a banal curiosity that needs clarification for



### The Anti-Masturbation Cross ([www.stopmasturbationnow.org](http://www.stopmasturbationnow.org))

*Figure notes:* A wooden cross is a unique tool used to limit a child's mobility as they sleep by forcing their arms and legs into an uncomfortable posture. As a result of this, the child is unable to turn on his side, move, or touch his genitalia.

the child. With pronounced masturbation, parents should ask for the help of a child psychologist.

Parents need to explain the importance of this issue; there is no need to torture their child. Attitudes toward sexual life, masturbation, and life in general are formed in childhood. Masturbation is very useful for teenagers, as it develops the sensitivity of the genitals. This is especially relevant for teenage girls since petting in adolescence ensures the development of sensitive receptors in the external genitalia and body training to get pleasure. This is an important period in the life of every girl. Owing to its omission, problems arise in the girl's adult life related to her sexual life.

Regarding adolescent boys, masturbation also plays a big role in the formation of sexuality but not in the development of sensitivity. Because boys touch their genitals daily during urination and automatically develop penile sensitivity. Girls do not touch their genitals often, so the development of sensitivity in them occurs through masturbation, petting, and caresses in adolescence (Figure).

Global approaches to the protection of children from sexual violence are enshrined in the Geneva Declaration of the Rights of the Child 1924 year, the Universal Declaration of Human Rights 1948 year, the Declaration of the Rights of the Child 1959 year, the International Covenant on Civil and Political Rights of 1966 year, the International Covenant on Economic, Social and cultural rights of 1966 year, the Convention on the Rights of the Child of 1989 year, the Council of Europe Convention on the Protection of Children from Sexual Exploitation and Sexual Violence of 2007 year. In particular, the provisions of the Council of Europe Convention on the Protection of Children from Sexual Exploitation and Sexual Violence identify the latter with harassment child for sexual purposes.

**The objective:** to study the relationship between the influence of malakia and the development of psychoemotional disorders in young people using the example of medical students of the 4th–5th years of the National Pirogov Memorial Medical University.

### MATERIALS AND METHODS

The National Pirogov Memorial Medical University, Vinnytsya, introduced the discipline «Fundamentals of Sexology and Sexopathology» as an elective on the basis of the Department of Obstetrics and Gynecology №1 for the first time from October 2021 until the present time. It serves as a foundation for discussion of the primary sexology themes.

Participants were chosen from the fourth and fifth courses of the National Pirogov Memorial Medical University, Vinnytsya. After they signed the consent form, they received the questionnaire. A total of 16 students (1.33% of the initial sample, n=1201) declined to participate; 11 (0.92%) questionnaires had insufficient information; 32 (2.66%) students identified as non-heterosexual; and 24 (1.9%) students did not identify themselves as bisexual. These people were not included in the final sample.

Thus, 1118 respondents from lower-middle-income countries like Ukraine, Angola, Syria, Egypt, Nigeria, India, Vietnam, Yemen, Uganda, Botswana, Zimbabwe, Zambia, Ghana, Kenya, Namibia, Swaziland, Somalia, Central African Republic, Mongolia, Pakistan, Cameroon, Morocco, Palestine, Kenya, New Guinea, Tunisia, and Sudan form the general final sample. In the first class, students were required to respond anonymously to a survey that consisted of 25 questions about various areas of their sexual lives. A questionnaire with 25 questions was used to interview young people about various elements of their sexual lives including attitude toward masturbation and acceptability of masturbation; and practice of onanism.

So, a comprehensive clinical and psychological examination was conducted on 1118 students using pathopsychological methods for self-assessment of depression (Patient Health Questionnaire-9) and the test for detecting General Anxiety Disorder-7 (GAD-7).

The Depressive Disorders Identification Scale (PHQ-9) is a nine-question questionnaire that reflects the level of depression. Nine items were scored for depression; for each item, the person was asked to rate the emotional severity level experienced over the past several weeks. Responses were recorded on a 4-point scale ranging from 0 (i.e., «Not at all») to 3 (i.e., «Extremely»). A total score was obtained for the scale by adding up the individual scores. The results were evaluated as follows: indicators from 1 to 9 were considered minimal depressive disorders (dysthymia); 10–14 points indicated mild depressive disorders; 15–19 points indicated depressive disorders of moderate severity; and 20 and more indicated severe depression. The essence of the assessment was that the students independently determined their condition according to a number of signs on a multilevel scale. The questionnaire for identifying signs of anxiety (GAD-7) consisted of 7 questions.

This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of «not at all», «several days», «more than half the days», and «nearly every day». The GAD-7 total score for the seven items ranges from 0 to 21. The sum of points less than 4 is minimal anxiety; 5–9 is mild anxiety; 10–14 is moderate anxiety; and 15–21 is severe anxiety [22, 23]. The statistical processing of the obtained results of the study was carried out on the basis of the computer program «Statistica for Windows 11.0», using nonparametric methods for evaluating the results obtained.

Table 1

Division among medical students over attitudes toward the autoerotic practice, n (P±m%)

Attitude of students	Domestic students, n=503		Foreign students, n=615	
	Sexually active, n=423	Virgin, n=80	Sexually active, n=311	Virgin, n=304
Positive	357 (84.61±4.21%)	64 (80.02±4.59%)	228 (73.32±3.51%)	169 (55.60±5.16%)
Negative	66 (15.60±4.10%)	16 (20.03±4.59%)	83 (26.74±4.55%)	135 (44.43±5.15%)

Table 2

Acceptance of autoerotic practice among medical students, n (P±m%)

Acceptance	Domestic students, n=503		Foreign students, n=615	
	Sexually active, n=423	Virgin, n=80	Sexually active, n=311	Virgin, n=304
Acceptable	377 (89.11±3.59%)	64 (80.02±4.59%)	202 (64.91±3.51%)	135 (44.41±5.16%)
Unacceptable	46 (10.91±4.10%)	16 (20.02±4.59%)	109 (35.13±4.55%)	169 (55.63±5.15%)

Table 3

The degree of anxiety among virgin and sexually active medical students, n (P±m%)

Anxiety	Domestic students, n=503		Foreign students, n=615	
	Sexually active, n=423	Virgin, n=80	Sexually active, n=311	Virgin, n=304
Minimal/Absent	81 (19.20±3.59%)	16 (20.03±3.65%)	112 (36.10±3.79%)	80 (26.30±3.47%)
Mild	188 (44.40±4.54%)	37 (46.62±4.56%)	108 (34.70±3.74%)	105 (34.51±3.74%)
Moderate	110 (26.08±3.99%)	16 (20.56±3.65%)	48 (15.43±3.95%)	65 (21.42±3.22%)
Severe	44 (10.42±2.80%)	11 (13.43±3.07%)	43 (13.83±2.74%)	54 (17.82±3.03%)

Descriptive statistical methods such as numerical, percentage, mean and standard deviation (P) were used to assess the data (m). To analyze the factors correlated with sexual life and PHQ-9 scores, a chi-square (X<sup>2</sup>) goodness of fit test was performed.

*The participation in the study was completely voluntary and anonymity would be guaranteed.*

*The results presented in this article represent a hitherto unpublished part of a comprehensive study of the department.*

## RESULTS AND THEIR DISCUSSION

The final sample used for analysis was comprised of 1118 young people: 604 (54.03%) were young men and 514 (45.97%) were young women; domestic students between 20 and 23 years old; foreign students between 21 and 27 years old; 734 (65.65%) participants were sexually active, and 384 (34.35%) were sexually inactive [24–26]. We interviewed students about their attitudes toward autoerotic practice. The answer options were: positive, negative, acceptable, or not acceptable to the respondents. According to this, the results are as follows: among sexually active domestic students, a greater quantity has a positive attitude towards masturbation, compared to sexually active foreign students. A significantly lower amount of domestic virgin students have a negative attitude towards masturbation, compared to foreign virgin students (Table 1).

The issue of ananism is quite widespread but is rarely discussed due to a lack of propriety. Among sexually active domestic students, autoerotic practice is common in 89.11±3.59% of cases and unacceptable in 10.91±4.10% of cases. Among virgin domestic students, the obtained information is similar.

64.91±3.51% of sexually active foreign students practice onanism, but more than half of virgin foreign respon-

dents consider that autoerotic practice is unacceptable for them (Table 2).

There was an established prevalence of anxiety disorders among sexually active and virgin students. A mild degree of anxiety prevails among sexually active (44.40±4.54%) and virgin domestic students (46.62±4.56%) and sexually active foreign students (34.70±3.74%) and virgin (34.51±3.74%). It has been proven Value (p) statistically significant difference with a Confidence Level of 95.5% (Table 3).

There was an established prevalence of minimal depressive disorders among domestic students (45.72±14.24%) and absence of depressive disorders among foreign students (59.18±18.43%); p≥0.05 (Table 4).

According to the results of statistical processing a chi-square (X<sup>2</sup>) goodness of fit test, the influence of masturbation on the development of depressive disorders among medical students wasn't established (X<sup>2</sup>=1.41; p≥0.05), but we established the influence of autoerotic practice on the level of anxiety among medical students (X<sup>2</sup>=6.37; p<0.05).

Table 4

The degree of depressive disorders among virgin and sexually active medical students, n (P±m%)

Depressive disorders	Domestic students, n=503	Foreign students, n=615
Absence	29 (5.76±5.29%)	364 (59.18±18.43%)
Minimal	230 (45.72±14.24%)	177 (28.78±11.49%)
Mild	134 (28.62±9.08%)	3 (0.49±0.35%)
Moderate	69 (13.71±6.45%)	42 (6.83±5.49%)
Severe	41 (8.15±5.53%)	29 (4.71±3.20%)

Autoeroticism is the practice of stimulating oneself sexually. The term was popularized toward the end of the 19<sup>th</sup> century by British sexologist Havelock Ellis who defined autoeroticism as «the phenomena of spontaneous sexual emotion generated in the absence of an external stimulus proceeding, directly or indirectly, from another person» [5, 6, 16]. The most common autoerotic practice is masturbation, and the two terms are often used as synonyms, although masturbation can also occur with a partner. Recent data from the European Male Aging Study demonstrated that masturbation is an independent entity in the overall global assessment of sexual health [1, 2, 15].

Masturbation has been ostracized for a long time and perceived as a moral sin by several religions such as Judaism, Islam, and Christianity [10, 11]. Traditionally, a multitude of illnesses have been associated with this sexual behavior such as insanity, fits, blindness, and even impotence [9, 10]. Nowadays, masturbation is no longer seen as a negative habit because it might even help in protecting individuals from the risk of sexually transmitted diseases [12]. In addition, an Australian study indicated that frequent masturbation helps prevent the development of prostate cancer [14].

However, in contrast with this study, a recent report shows that masturbation activity in the early 20s and 30s is consistently associated with a high risk of incident prostate cancer, although it is protective in the highest age bands (50s) [13].

Alfred Kinsey's sexual behavior studies, in the middle of the last century, reported that 92% of men have masturbated during their lifespan [15, 21]. I. Nazareth et al. showed that, among 477 men attending London general practitioners, 63.3% declared autoeroticism in the previous 4 weeks; of those, 8% reported daily or more frequent masturbation. S. T. Lindau et al. [4, 16] in a large study involving 1,455 community-dwelling men aged 57–85 demonstrated an age-dependent reduction of the frequency of autoeroticism, with 63.4% of subjects between 57 and 64 years old reporting masturbation during the last 12 months in comparison with 27.9% of those aged 75–85 years.

A recent survey of the British general population aged 16–44 years indicated that 73% of men reported masturbation in the 4 weeks prior to the interview [15, 18, 23]. In this survey, the prevalence of male masturbation was most frequent among men reporting less than four occasions of

sex in the last 4 weeks [2, 3]. Interestingly, men reporting at least one sexual problem in the last year were more likely to report masturbation [1, 10].

A better level of education was positively associated with the frequency of masturbation in several national surveys, most probably because it may help in reducing fears and guilt. A feeling of guilt with masturbation was indeed reported by one-third of subjects attending an Indian Sex Therapy Clinic [18, 19].

In conclusion, the study addresses the gap in the literature regarding sexual activity and sexual health among young people with a positive attitude toward masturbation and the development of anxiety disorders. It highlights that young people with a positive attitude toward masturbation are likely to have less anxiety. Within mainstream universities, young people aren't receiving sex education, and this is preventing their engagement in safe sex. We also received feedback from students. This feedback is also good for the teachers.

This evaluation is a step that would precede introducing changes in the syllabus and activating other teaching resources designed to ensure the passage of the European Credit Transfer and Accumulation System at the university.

## CONCLUSIONS

1. Mild forms of anxiety prevail among domestic youth and sexually inactive foreign students.
2. The presence of anxiety symptoms is either minor or nonexistent among sexually active international students.
3. It has been proven that among young people who are sexually active and virgins, masturbating lowers anxiety levels ( $p \leq 0.05$ ). However, autoerotic practice has little impact on the development of depressive disorders ( $p \geq 0.05$ ).

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