






Original Research

Pornography Use and Its Impact on Professional Performance of Faculty of Medicine Udayana University Students

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Abstracts

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Introduction: Pornography is a medium containing sexual content in various forms that is used to satisfy the sexual desires of its consumers. Technological advancements have eased access to pornography, increasing consumption especially among the productive age group. Addiction to pornography has several negative impacts such as increasing anxiety, stress, and depression, which reduces productivity. This study aims to determine the level of pornography addiction among students of the Faculty of Medicine at Udayana University and its impact on their productivity. **Methods:** This research is an analytic study with a cross-sectional design to determine the effect of pornography on the productivity of Udayana University students in 2021. The research instrument are collected through questionnaire in the form of Google Forms, distributed to the 2021 cohort of the Faculty of Medicine at Udayana University anonymously to allow respondents to be more open about their pornography use, thereby enhancing the validity of the research. The results were then analyzed using an independent t-test with SPSS version 26. **Results:** The Pornography Craving Questionnaire revealed that 19.44% (n=14) of respondents were addicted to pornography. Those who were addicted were dominated by male respondents (26.53% vs 4.34%). When compared to productivity scores from the Individual Job Performance Questionnaire, those who were addicted had an average score of 1.30 points lower than those who were not addicted, with a P-value <0.001. The non-addicted group showed significantly higher average productivity. **Conclusions:** Pornography negatively impacts users' productivity, prompting more workplace interventions in the future.

Keywords: Pornography, Productivity, Medical Students

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INTRODUCTION

Pornography is a medium containing sexual content that can take the form of images, photos, text, sounds, animations, cartoons, conversations, or body movements, typically used to satisfy the sexual desires of its consumers. The word pornography is derived from the Greek language, specifically pornographos, which consists of two words: porne (meaning “a prostitute”) referring to prostitution, and graphein (meaning “to write or draw”). Thus, pornography can literally be interpreted as writings or illustrations about prostitution. It can also be understood as content depicting human behavior explicitly, intended to fulfill sexual desires. Today, pornography is often regarded as something immoral and deliberately presented to provoke sexual arousal [1].

The definition of pornography in an article is complex and subjective, depending not only on the nature of the material but also on individual perceptions and social context. However, universally, pornography can be defined as explicit sexual content aimed at arousing sexual desire, encompassing all forms of its material [2].

Advances in technology today have made access to pornographic content much easier for many people. This, of course, has contributed to an increase in the number of consumers of pornography. According to a study conducted in Poland, there was a significant increase in the number of pornography consumers between 2004 and 2016. The study recorded a threefold increase (310%), from approximately 2.76 million consumers to 8.54 million by the end of the observation period. The study also found that pornography consumption is more common among men than women and is generally consumed by individuals aged 18–27 years [3].

A study shows that pornography use can negatively affect the brain by increasing stress, anxiety, and depression, while also creating inner conflicts with personal values and identity. It affects the brain’s reward system, particularly the prefrontal cortex,

which is responsible for decision-making and impulse control, and the striatum, which is involved in motivation and rewards. Over time, repeated exposure can lead to desensitization, causing users to seek more stimulation for the same level of satisfaction. This impacts emotional regulation and mental wellbeing, and can contribute to addictive behavior [4].

According to Introduction to Addictive Behaviors, Fifth Edition, pornography can become an addictive behavior due to the brain’s reward system, which is activated when consuming sexually stimulating content. Similar to substance use, pornography consumption stimulates the release of dopamine, a neurotransmitter associated with pleasure and reward. Over time, repeated exposure to pornography can cause the brain to require more intense or frequent stimulation to achieve the same level of satisfaction, leading to tolerance. This process is similar to other forms of addiction, where it also requires treatment and intervention, which may include therapy [5].

The relationship between pornography and sexual dysfunction remains a topic of debate in various studies. Sexual dysfunction is often linked to erectile dysfunction, hypoactive sexual desire disorder, and delayed ejaculation. One study also suggests that adolescents who consume pornography before ever engaging in direct sexual intercourse tend to experience difficulties in reaching climax during actual sexual encounters. This is because they struggle to develop the synaptic connections that can respond to real sexual experiences [6]. Pornography addiction is also explored in Behavioral Addictions, where the book highlights how this behavior can lead to desensitization of the brain’s reward system, escalating consumption while impairing natural arousal mechanisms and contributing to intimacy issues and sexual dysfunction. Additionally, the social stigma and shame surrounding pornography addiction often hinder individuals from seeking help, exacerbating psychological distress

and complicating treatment [7].

Dependence on pornography poses problems for the quality of life of its users. Addiction to pornography can affect the mental and social health of those who consume it. It is often associated with anxiety, stress, and depression. Several studies have also revealed a positive correlation between the frequency of exposure to pornography and levels of depression and anxiety [8]. Compulsive or problematic use can also have a significant impact on mental health, including an increase in anxiety. This occurs due to the emotional discomfort and psychological conflict arising from the use of pornography, which is seen as inconsistent with the individual's personal standards or values. This causes anxiety as an emotional side effect when individuals feel they have lost control over their behavior [9].

According to research by Vimal & Divyasree with a population of male adolescents, it was found that there was no significant relationship between pornography and sexual depression. However, there was a significant relationship between pornography and sleep difficulties, with the level of sleep difficulties tending to increase as the desire to watch pornography grew [10]. Another study found a significant correlation between excessive pornography use and insomnia or sleep disorders, where it was found that the higher the intensity of pornography use, the worse the quality of sleep for the users. This is related to the psychological stress caused by pornography use, which affects the ability to initiate and maintain sleep. It is also linked to emotional dysregulation, where individuals with excessive use tend to have difficulty managing their emotions, which in turn can affect the quality of their sleep [11].

A finding stated that pornography addiction has both physiological and psychosocial impacts that can affect productivity. Pornography addiction is associated with risky sexual behaviors and excessive sexual exploration, which can disrupt the user's routine balance. Various effects of pornography, such as re-

duced focus, poor time management, and emotional well-being issues, can influence the individual's productivity [12]. Other research also shows difficulties in making friends and initiating communication in individuals addicted to pornography [13].

These issues inevitably lead to decreased productivity. Where based on an article that presents several definitions of work productivity, in general, work productivity can be defined as the relationship between the actual output in the form of goods or services and the inputs used. In this context, productivity reflects how efficiently and effectively inputs are used to generate optimal output [14]. The author hypothesized that there was a correlation between pornography addiction and the productivity of students of the Faculty of Medicine at Udayana University. Therefore, this study aims to determine the level of pornography addiction among students of the Faculty of Medicine at Udayana University and its impact on their productivity.

METHODS

This research is an analytic study with a cross-sectional design. The sample in this study was Udayana University batch 2021 medical students. The total sample of the study was 72 respondents out of 241 the third-year medical students using the consecutive sampling technique. The inclusion criteria for the 2021 medical students at Udayana University who agreed to participate in the study and completed the questionnaire in full with the exclusion criteria are those with a history of being diagnosed with severe mental illnesses or a history of addiction to narcotics, psychotropic substances, and other addictive substances. The independent variable in this study was the pornography addiction and the dependent variable in this study was productivity. The research instrument uses primary data collected through an online questionnaire in the form of Google Forms, distributed to the batch 2021 of the Faculty of Medicine

at Udayana University. The questionnaire was obtained from modified Pornography Craving Questionnaire (PCQ) and Individual Work Performance Questionnaire (PCQ) instruments, and the results were then analyzed using an independent t-test with SPSS version 26. This study is entirely anonymous by collecting only the respondents' age and gender to allow respondents to be more open about their pornography use, thereby en-

hancing the validity of the research.

RESULTS

In this study, 72 respondents met the inclusion and exclusion criteria. Table 1 shows the research results, indicating the prevalence and characteristics of the respondents, which include gender and age. A PCQ score of 5 and above shows that the respondent is having a pornography addiction.

Table 1. Distribution of Respondent Characteristics

Characteristics	n	%
Gender		
Man	49	68.05%
Women	23	31.94%
Age		
20	9	12.5%
21	60	83.33%
22-23	3	4.16%
PCQ Score		
<5	58	80.55%
≥5	14	19.44%

It was found that 14 individuals (19.44%) were addicted to pornography based on the PCQ. Among all the respondents. The highest and lowest PCQ scores among the respondents were 6 and 1. The youngest respondent was 20 years old with 9 participants, and the oldest was 23 years old with 1 participant.

Table 2. PCQ Scores Based on Gender

Gender	n	%
Man		
<5	36	73.46%
≥5	13	26.53%
Women		
<5	22	95.65%
≥5	1	4.34%

It can be seen that those with a score of 5 or above are predominantly male, with 13 out of 14 individuals who are addicted to pornography.

Table 3. Difference in the Average IWPQ Scores between Students with Pornography Addiction and Students without Pornography Addiction

Domain	With Addition			No Addition			Mean Difference	P-value
	↑	↓	Mean±SD	↑	↓	Mean±SD		
Productivity Score	7.1	3.07	5.31±1.12	10.08	4.32	7.01±1.32	1.30	<0.001

↑: Highest productivity score

↓: Lowest productivity score

An independent T-test calculation was used to determine if there was a significant difference in the average scores between those with pornography addiction and those without it. Table 3 presents the results of this relationship. Based on the calculation, this study proves that there is a significant difference between pornography addiction and productivity scores (p-value: <0.001).

DISCUSSIONS

The research subjects in this study were students from the Faculty of Medicine at Udayana University, with an age range of 20-23 years, predominantly male (68.05%). This group also constituted the majority of those with a pornography addiction. This finding is similar to the results of a longitudinal study involving a large group of men and women by Sommet and Berent. The study showed that men tend to be more open about their sexual habits, in this case, pornography use, due to differences in gender norms, sexual drive, and attitudes toward pornography. Generally, it was found that men have higher sexual drives, which lead to more frequent pornography use. Additionally, social norms are more permissive toward sexual exploration in men, with less stigma surrounding pornography use compared to women. Therefore, it is considered more socially acceptable for men to use pornography as an outlet for their sexual desires [15].

In The Textbook of Clinical Sexual Medicine, the differences between male and female sexual desire are influenced by biological, psychological, and social factors. Men's sexual desire is often more spontaneous and closely linked to physiological factors like testosterone levels, with a direct response to

sexual stimuli. In contrast, women's sexual desire is typically more context-dependent, influenced by emotional intimacy, relationship satisfaction, and psychological well-being. Hormonal fluctuations, such as those during the menstrual cycle or menopause, also significantly affect female desire. While both genders are impacted by hormonal factors, men's sexual desire is more straightforwardly influenced by testosterone, while women's desire is shaped by a combination of estrogen, progesterone, and emotional context. Cultural and social factors also play a role, with societal norms often encouraging men to express overt sexual desire, while women's sexual expression may be more closely tied to emotional bonds and relational security [16].

This study found a significant difference in productivity levels measured using the IWPQ, where respondents with pornography addiction (Mean ± SD: 5.31 ± 1.12) showed a significant difference in average scores compared to respondents without pornography addiction (Mean ± SD: 7.01 ± 1.32). The results show that the average productivity score of respondents without pornography addiction is significantly higher than that of respondents with pornography addiction. This indicates that pornography addiction can interfere with daily activities, including productivity, especially in completing tasks. Previous studies have also shown a decline in productivity quality due to excessive pornography exposure, as demonstrated in an article by Fisher in The Journal of Sexual Medicine on pornography addiction. The article discusses the emotional effects of excessive pornography exposure, such as feelings of guilt, low self-esteem, and a decline

in self-control, which are often linked to procrastination and distraction while working. Other effects include poor time management due to wasted time watching pornography and recovering from its effects. Pornography use is also commonly associated with decreased motivation to fulfill responsibilities or pursue goals, as overstimulation of dopamine in the brain's reward system causes individuals to prioritize instant gratification. Continuous exposure can lead to cognitive fatigue, making it difficult to maintain focus, recall information, and make decisions [17]. An article also explores the correlation between pornography consumption and unethical behavior in business, showing that individuals who consume pornography are more likely to engage in unethical practices. This behavior is linked to moral disengagement, where consumers dehumanize others, leading to lower ethical standards in the workplace. The study suggests that pornography consumption can negatively affect professional behavior, contributing to unethical actions that can affect someone's productivity [18]. The study published in *Psychiatry Research* explores the relationship between compulsive pornography use and mental health among university students. A research study also found that compulsive pornography use was strongly associated with increased levels of anxiety and depression, indicating that excessive consumption of pornography may contribute to mental health issues, and this study highlights the psychological risks linked to compulsive pornography use and emphasizes the need for further research to better understand its impact on mental well-being [19].

An article also shows that the high prevalence of internet addiction among medical students and its negative impact on sleep quality, where the study reveals that excessive internet use, particularly late-night activities, leads to poor sleep duration and quality, contributing to stress and anxiety. Where it is aligned with the findings on the use of pornography among medical students,

the study also highlights the harmful effects of compulsive pornography use [20].

The findings in these articles align with the results of our study, which also found productivity disruptions in individuals with pornography addiction. Similar to our research, the studies in most of the articles were conducted on students and workers, focusing on those with high consumption habits. These studies involved both men and women, with men being the primary group due to the higher prevalence of pornography use. There is also a finding in research that has also been done towards medical students, where medical education is widely recognized as a high-stress environment, with students often experiencing anxiety due to academic pressure and demanding training schedules. To cope, many turn to smartphones for temporary relief and entertainment. However, excessive use of smartphones often leads to addiction, as evidenced by studies that show significant correlations between anxiety levels and smartphone overuse. This pattern of behavior mirrors the findings of our research, where pornography consumption was identified as a maladaptive coping mechanism for stress or emotional distress. Both cases underscore how individuals may rely on immediate gratification behaviors to manage anxiety, inadvertently fostering addiction that contributes to functional impairments such as reduced productivity or academic performance [21]. According to research, stressors like immense academic pressures, including a rigorous curriculum, long study hours, and intense competition, can significantly affect their mental health and contribute to high levels of depression, anxiety, and even suicidal ideation among medical students. Some students may turn to accessible outlets like pornography as a form of temporary relief or escapism. While this behavior might provide short-term comfort, it could lead to feelings of guilt and shame, further exacerbating stress levels and negatively impacting their productivity. The reliance on such coping mechanisms highlights the importance

of addressing not only academic pressures but also the mental health support systems available to students [22].

Research Limitation

Although the study showed significant results, it has some limitations, such as only indicating a correlation between pornography addiction and productivity levels, rather than establishing a cause-and-effect relationship. The study also did not measure variables such as work environment, health conditions, and work abilities, which could influence productivity. There is also the possibility of subjective responses, as the scoring depends on the respondents' subjective perceptions, which could lead to recall bias or other biases. However, the study still demonstrates the relationship between pornography addiction and students' productivity levels. The study was conducted anonymously to encourage respondents to provide honest answers and increase the validity of the data related to pornography addiction, which is a sensitive topic.

CONCLUSION

Based on the results of research that have been conducted on the correlation between pornography addiction and productivity of batch 2021 students of Medicine Faculty Udayana University, the conclusion that can be drawn is that it was found that there is a significant correlation between pornography addiction and productivity of the students. Where the non-addicted group had a significantly higher average productivity score compared to the group with pornography addiction. The author also suggests that research on the impact of pornography on productivity levels should ideally be conducted longitudinally to observe changes in addiction and productivity over a certain period of time. Further exploration can also be conducted on other demographic groups or related variables, such as social and work environments. With the findings from this study, the author hopes that pornography ad-

diction will be more seriously considered as one of the factors affecting an individual's work productivity, leading to more interventions being implemented regarding pornography addiction in the workplace in the future.

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Ethical Clereance

This study has received ethical permission from the Ethics Commission of Faculty of Medicine Udayana University (No. 1314 / UN14.2.2.VII.14/LT/2024).

CONFLICT OF INTEREST

The authors declares no conflict of interest.

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REFERENCES

- [1] G. Haidar, N. C. Apsari, P. Studi, I. Kes-ejahteraan, and S. Fisip, "PORNOGRAFI PADA KALANGAN REMAJA Program Studi Sarjana Ilmu Kesejahteraan Sosial Universitas Padjadjaran," pp. 136–143, 2020.
- [2] A. McKee, P. Byron, K. Litsou, and R. Ingham, "An Interdisciplinary Definition of Pornography: Results from a Global Delphi Panel," Arch. Sex. Behav., vol. 49, no. 3, pp. 1085–1091, Apr. 2020, doi: [10.1007/s10508-019-01554-4](https://doi.org/10.1007/s10508-019-01554-4).
- [3] K. Lewczuk, A. Wójcik, and M. Gola, "Increase in the Prevalence of Online Pornography Use: Objective Data Analysis from the Period Between 2004 and 2016 in Poland," Arch. Sex. Behav., vol. 51, no. 2, pp. 1157–1171, 2022, doi: [10.1007/s10508-021-02090-w](https://doi.org/10.1007/s10508-021-02090-w).
- [4] M. Privara and P. Bob, "Pornography

Consumption and Cognitive-Affective Distress,” *J. Nerv. Ment. Dis.*, vol. 211, no. 8, pp. 641–646, Aug. 2023, doi: [10.1097/NMD.0000000000001669](https://doi.org/10.1097/NMD.0000000000001669).

[5] D. L. Thombs and C. J. Osborn, *Introduction to Addictive Behaviors*. Guilford Publications, 2019. [Online]. Available: <https://books.google.co.id/books?id=uB-vwugEACAAJ>

[6] B. J. Sadock, V. A. Sadock, and P. Ruiz, “Human Sexuality and Sexual Dysfunctions,” in *Kaplan & Sadock’s Synopsis of Psychiatry: Behavioral Sciences/clinical Psychiatry*, Wolters Kluwer, 2015, ch. 17, p. 578. [Online]. Available: <https://books.google.co.id/books?id=QQmOngEACAAJ>

[7] H. M. Pontes, *Behavioral Addictions: Conceptual, Clinical, Assessment, and Treatment Approaches*. Springer Cham, 2022. doi: [10.1007/978-3-031-04772-5](https://doi.org/10.1007/978-3-031-04772-5).

[8] R. Guidry, C. G. Floyd, F. Volk, and C. E. Moen, “The Exacerbating Impact of Moral Disapproval on the Relationship Between Pornography Use and Depression, Anxiety, and Relationship Satisfaction,” *J. Sex Marital Ther.*, vol. 46, no. 2, pp. 103–121, 2020, doi: [10.1080/0092623X.2019.1654579](https://doi.org/10.1080/0092623X.2019.1654579).

[9] C. Vieira and M. D. Griffiths, “Problematic Pornography Use and Mental Health: A Systematic Review,” *Sex. Heal. Compulsivity*, vol. 31, no. 3, pp. 207–247, 2024, doi: [10.1080/26929953.2024.2348624](https://doi.org/10.1080/26929953.2024.2348624).

[10] A. Vimal and J. Divyasree, “Pornography craving – Its association with Sleep Deprivation & Sexual disappointment among boys,” vol. 8, no. 2, 2020, doi: [10.25215/0802.258](https://doi.org/10.25215/0802.258).

[11] A. Musetti et al., “The Interplay Between Problematic Online Pornography Use, Psychological Stress, Emotion Dysregulation and Insomnia Symptoms During the COVID-19 Pandemic: A Mediation Analysis,” *Nat. Sci. Sleep*, vol. 14, pp. 83–92, 2022, doi: [10.2147/NSS.S348242](https://doi.org/10.2147/NSS.S348242).

[12] H. Mehmood Qadri et al., “Physiological, Psychosocial and Substance Abuse Effects of Pornography Addiction: A Narrative Review,” *Cureus*, vol. 15, no. 1, p. e33703,

Jan. 2023, doi: [10.7759/cureus.33703](https://doi.org/10.7759/cureus.33703).

[13] R. Setyawati, N. Hartini, and S. Suryanto, “The Psychological Impacts of Internet Pornography Addiction on Adolescents,” *Humaniora*, vol. 11, no. 3, pp. 235–244, 2020, doi: [10.21512/humaniora.v11i3.6682](https://doi.org/10.21512/humaniora.v11i3.6682).

[14] K. N. Baiti, D. Djumali, and E. Kus-tiyah, “Employee Productivity Viewed from Motivation, Work Discipline, and Environment at PT. Iskandar Indah Printing Textile Surakarta,” *J. Ilm. Edunomika*, vol. 4, no. 01, pp. 69–87, 2020.

[15] N. Sommet and J. Berent, “Porn use and men’s and women’s sexual performance: evidence from a large longitudinal sample,” *Psychol. Med.*, vol. 53, no. 7, pp. 3105–3114, 2023, doi: DOI: [10.1017/S003329172100516X](https://doi.org/10.1017/S003329172100516X).

[16] W. W. IsHak, *The Textbook of Clinical Sexual Medicine*. Springer International Publishing, 2017. [Online]. Available: <https://books.google.co.id/books?id=ZyYm-DwAAQBAJ>

[17] W. Fisher, “004 How Science Studies Pornography Impact and What Science Can, and Cannot, Tell Us,” *J. Sex. Med.*, vol. 16, no. Supplement 3, pp. S2–S2, Jun. 2019, doi: [10.1016/j.jsxm.2019.03.461](https://doi.org/10.1016/j.jsxm.2019.03.461).

[18] N. Mecham, M. Lewis-Western, and D. Wood, “The Effects of Pornography on Unethical Behavior in Business,” *J. Bus. Ethics*, vol. 168, Jan. 2021, doi: [10.1007/s10551-019-04230-8](https://doi.org/10.1007/s10551-019-04230-8).

[19] C. Camilleri, J. T. Perry, and S. Sammut, “Compulsive Internet Pornography Use and Mental Health: A Cross-Sectional Study in a Sample of University Students in the United States,” *Front. Psychol.*, vol. 11, p. 613244, Jan. 2021, doi: [10.3389/fpsyg.2020.613244](https://doi.org/10.3389/fpsyg.2020.613244).

[20] Y. Wang et al., “The current situation of internet addiction and its impact on sleep quality and self-injury behavior in Chinese medical students,” *Psychiatry Investig.*, vol. 17, no. 3, pp. 237–242, 2020, doi: [10.30773/pi.2019.0131](https://doi.org/10.30773/pi.2019.0131).

[21] Femmy T. Fahira, Sulistiawati, and Azimatul Karimah, “The Correlation Between Anxiety and Smartphone Addiction Among

Medical Students,” J. Psikiatri Surabaya, vol. 12, no. 2, pp. 126–131, 2023, doi: [10.20473/jps.v12i2.33190](https://doi.org/10.20473/jps.v12i2.33190).

[22] A. Amalia, Sulistiawati, and Azimatul Karimah, “The Differences of Depres-

sion Level and Risk of Suicide in Medical Students in Surabaya,” J. Psikiatri Surabaya, vol. 11, no. 2, pp. 103–109, 2022, doi: [10.20473/jps.v11i2.28024](https://doi.org/10.20473/jps.v11i2.28024).