

**SPECIAL ISSUE**



# **DIGITALIZATION - THE FUTURE OF MEDICINE**

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TASHKENT MEDICAL ACADEMY

**ABSTRACT BOOK OF THE II INTERNATIONAL STUDENT  
CONFERENCE “DIGITALIZATION- THE FUTURE OF MEDICINE”**

TASHKENT-2024

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**“RAQAMLASHTIRISH-TIBBIYOT KELAJAGI” MAVZUSIDAGI II XALQARO  
TALABALAR KONFERENSIYASI TO‘PLAMI**

TOSHKENT-2024

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МИНИСТЕРСТВО ВЫСШЕГО И СРЕДНЕГО СПЕЦИАЛЬНОГО  
ОБРАЗОВАНИЯ РЕСПУБЛИКИ УЗБЕКИСТАН

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ  
УЗБЕКИСТАН

ТАШКЕНТСКАЯ МЕДИЦИНСКАЯ АКАДЕМИЯ

**СБОРНИК МАТЕРИАЛОВ II МЕЖДУНАРОДНОЙ СТУДЕНЧЕСКОЙ  
КОНФЕРЕНЦИИ «ЦИФРОВИЗАЦИЯ-БУДУЩЕЕ МЕДИЦИНЫ»**

Ташкент – 2024

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**SMARTWATCH EFFECTIVENESS IN PREVENTING NONCOMMUNICABLE  
DISEASES: INSIGHTS FROM A GOOGLE FORM SURVEY AMONG MEDICAL  
STUDENTS AT TASHKENT MEDICAL ACADEMY, UZBEKISTAN.**

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**Abstract**

Digital in medicine has revolutionised healthcare delivery with smart watches playing a significant role in monitoring and managing health. Smart watches are equipped with various sensors that can track vital signs, physical activity, sleep patterns and even detect irregularities in heart rate or rhythm, the data can be synced to mobile apps or cloud platforms for further analysis and interpretation by healthcare professionals.

**Introduction**

Noncommunicable diseases such as cardiovascular diseases, diabetes and obesity pose a significant health burden. Globally, prevention strategies play a crucial role in reducing the prevalence of these diseases and improving overall health outcomes. Smart watches have emerged as a promising tool for promoting health and well-being. In the modern healthcare system, smart watches have the potential to enhance patient care and improve health outcomes. Also, can help individual who cannot communicate. These sensor and wearable technologies can inspire others to inculcate healthy patterns and lifestyle. Thanks to digitalisation and wearable technology.

**Aim:**

The purpose of the study is to explore the effectiveness of smart watch and its impact on the lives of medical students, especially in the context of preventing noncommunicable diseases. Highlighting the potential benefits of integrating this technology into healthcare education and practice.

**Keywords: -**

monitoring, smartwatch, wearable technology, health, physical activity, exercise, habits, medical students, non-communicable diseases.

**Methods:**

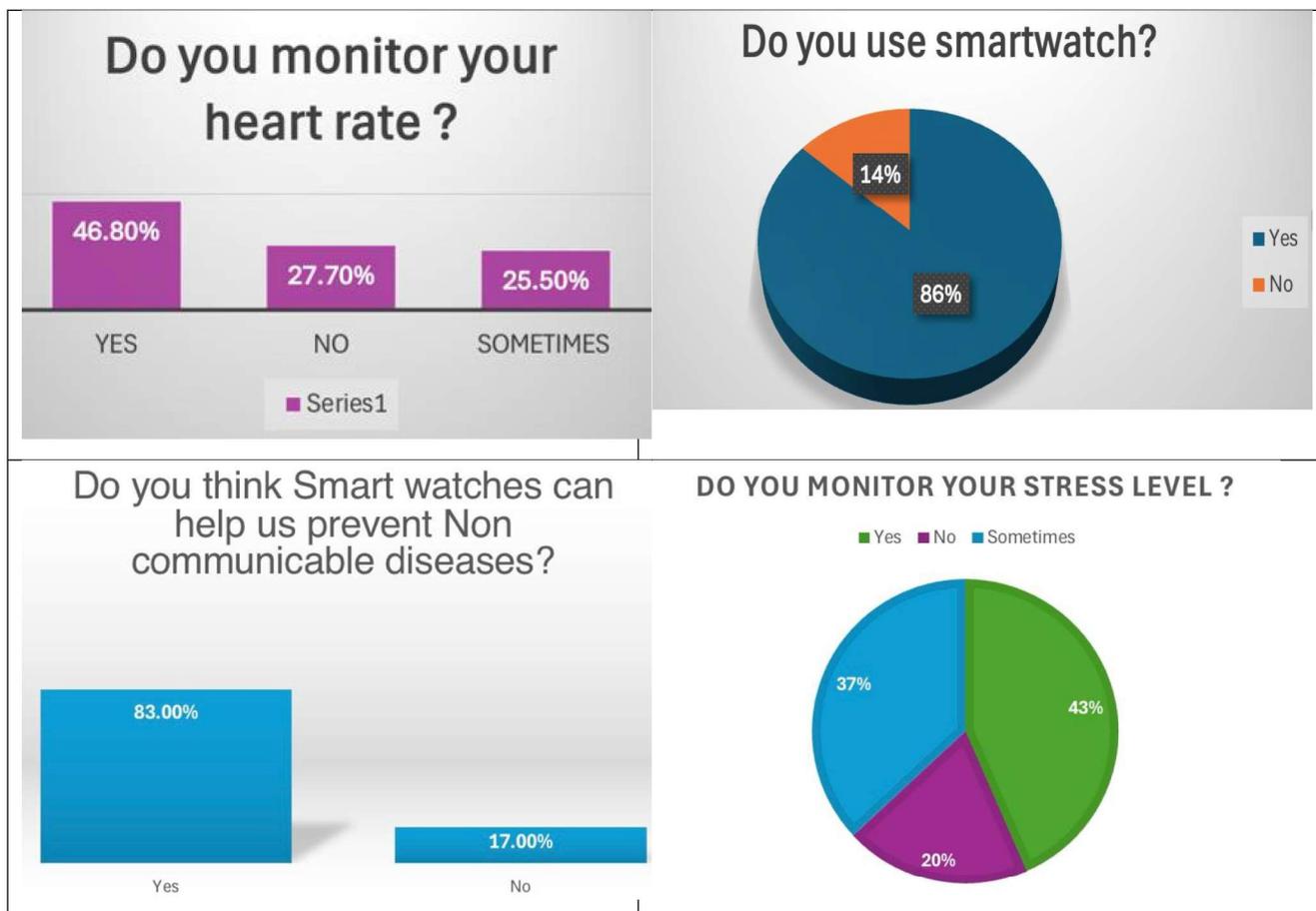
The target people of the survey were undergraduate medical students of international faculty, studying at Tashkent medical Academy, Uzbekistan. The study used an online Google form questionnaire as an instrument. And Microsoft Excel Sheet for analysis. Invitation to participate in the survey along with detail information was distributed through telegram and WhatsApp. The

questions in the developed questionnaire were based on socio-demographic variables, knowledge regarding non communicable diseases, activities, benefits of smartwatch.

**Results: -**

The survey was conducted using information and communication technology. Data based on the responses. The graphs below show the results of the survey.

In our survey, total number of participants were (n= 47). 36.5% males and 63.5% females participated. From 19 years old to 25 years old students participated. Out of which 61.7% students knew about non-communicable diseases. 86.4% students use smart watch. About 46.8% students monitor heart rate using smart watch. 52.2%, students monitored daily steps, 21.7% students do not count daily steps and 26.1% students sometimes monitor daily steps counts. 43.5% students even monitor stress level, 19.6% students do not and sometimes measure for 37%. 50% students set alarm or reminders while 32.6% students sometimes do, and 17.4% students do not send any alarm or reminder. Only 36.2% students count the calories intake while 46.8% Students sometime. About 17% of students don't track calorie count. 40.4%, students of read and watch programmes about improving health while 38.3% Student sometimes watch programs related to health. 42.6% students mention as they do not get enough sleep. about 29.8% students out daily while 14.9% students do not exercise. Surprisingly, 83% students think that smart watch can help us prevent non-communicable diseases.





**Conclusion: -**

### References

1. Б.Т. Рахимов. The role of innovative educational technologies in teaching biophysics. research and education. 2023. issn: 2181-3191 volume 2 | issue 3 | 202 91-99.
2. Б.Т. Рахимов, Х.А. Мухитдинов, З.Р. Жўраева. Алгоритм обучения биофизике с использованием инновационных образовательных технологий. 30.03.2023 Innovative Development in Educational Activities issn: 2181-3523 volume 2 issue 6 2023. 191-200.
3. М.И. Базарбаев, Д.И. Сайфуллаева, Б.Т. Рахимов, З.Р. Жўраева Роль информационных технологий в медицине и биомедицинской инженерии в подготовке будущих специалистов в период цифровой трансформации в образовании. 10.10.2022. ТТА. Ахборотномаси. 8-13.
4. Б.Т. Рахимов. Современное состояние биофизики и особенности преподавания биофизики в медицинском вузе. Formation of psychology and pedagogy as interdisciplinary sciences. Italia © Sp. z o. o. "CAN", 2021 © Authors, 18-27.
5. Б.Т. Рахимов, М.И. Базарбаев, А.З. Собиржонов Состояние проблемы подготовки студентов-медиков к решению профессиональных задач в обучении биофизике. New Day in Meditcina. www.bsmi.uz <https://newdaymedicine.com> E: ndmuz@mail.ru. 4/54/200-207
6. M.I.Bazarbayev, B.T.Raximov, A.Z.Sobirjonov, D.I.Sayfullayeva, Z.R.Jurayeva, S.I.Ixrrova The Importance of Digital Technologies in the Teaching of Fundamental Sciences in Medical Universities. American Journal of Medicine and Medical Sciences. American Journal of Medicine and Medical Sciences 2023, 13(6): 814-820 DOI: 10.5923/j.ajmms.2023.13.06.09
7. Bobur Raximov. Innovative technologies in teaching biophysics. Дата публикации 2021/4/24 Издатель Tashkent medical academy Описание This article provides information on innovative technologies used in the teaching of biophysics and their importance, medication, schedules, hydration and regular breaks. Medical students can benefit from these

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