ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 1| January2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

COGNITION OF SOCIAL MEDIA AND ITS RELATIONSHIP WITH HEALTH DETERMINANTS ON DENTAL AND PARAMEDICAL YOUTH OF 2-2TIER CITIES IN INDIA; A CONVERGENT PARALLEL-MIXED METHOD RESEARCH

Saxena Yash*, Shrivastava Leher

Article DOI: https://doi.org/10.36713/epra25671
DOI No: 10.36713/epra25671

ABSTRACT

The emergence of influencers and extravagant use of social networking sites for various reasons has started shaping life. 'Linktree – the 2022 creator report' states 4.62 billion users of the social media, its multiplying drastically each year; if we see percentage wise it is highest in India. As there is no check post during content creation and posting it online loads of unverified information is available online.

Objective: *This study aims to determine the dependency and aptitude of dental and paramedical youth for their own health care be it physical, mental, dietary, dental and medical advice.*

Methods: *This study assessed the Time of usage of internet, the platform they visit to seek preliminary advice, and their ability to distinguish between factual and or mythical content online.*

Result: *The research found that although the participants perceived of negative impact of usage of social media and the study found out that there are high chances of encountering mythical content online if it was their only source of seeking advice. Study also found that participants have reversed few habits after debunking myths when they consulted a professional.*

Conclusion: *Although factual information may be available which may be helpful, online use of social media platforms for health may be a double edged sword.*

KEY WORDS: *Social Media, Dietary Advice, Health Advice*

INTRODUCTION

Social Media

A platform that enables its users to engage with one another verbally and visually on various networking channels on the internet. Nearly 92% actively use internet based socializing platforms even before before the end of teenage and beginning of young adulthood. In today's rapidly changing world Social media has gained a recognition of being a double edged sword (1). As per the projection claimed the number of internet users in the world by 2025 to be approximately 5.41 billion (2). For India the numbers are staggering at almost 20.4% of total internet users being only in India and the YoY (year on Year) growth of internet users is also approximately 8% rising from 886 million in 2024 to more than 900 million internet users, as per Internet and mobile association of India, it splits one of the largest consumer share of data worldwide (3).

As the consumers of internet are increasing so is the demand to create content is; the number being over 207 million creators worldwide out of which only 23million creators have followers less than 1000 the rest 184 million users have followers above it. The unprecedented Exposure to vast amounts of digital information, along with changing modes of media consumption, could alter cognitive mechanisms involved in information organization.(4) One of the fork of content creators out of all the domains are health advisors or the ones who claim to be providing health and wellness tips online through Instagram reels/ YouTube shorts etc. (5).

Although the number is not very clear on the exact number of such creators on an average every 10th reel/shorts etc. when scrolled will be tipping on health or diet or physical or mental routine in it, which may be an algorithm of use.

This paper aims at exploring the qualitative as well as quantitative aspects in parallel – of the internet users in India targeting the youth and young adults, their experiences and their 1st go to on the internet regarding physical/mental health, diet, dental, or medical issues; with reasons and their aptitude to distinguish factual and mythical information available on the internet.

MATERIAL AND METHODS

The current study was undertaken on students of randomly selected cities firstly - Nagpur and Bhubaneshwar, followed by randomly selected dental & paramedical colleges of these cities further followed by randomly selected students in these colleges a total of approximately 7500 students were the target population.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 1| January2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

Ethical clearance was obtained; after explaining the need of the study briefly and confidentiality warranted an online survey link was shared to the randomly selected students based on their roll numbers a simple random sampling technique was adopted in form of lottery system among students. Those students willing to participate in the survey- were included in the study until the predetermined sample size of 366 students (^) (183 from each city) responded within a fortnight making it a cross sectional research. Those not willing to participate, Adults & Elderly people were excluded from the study.

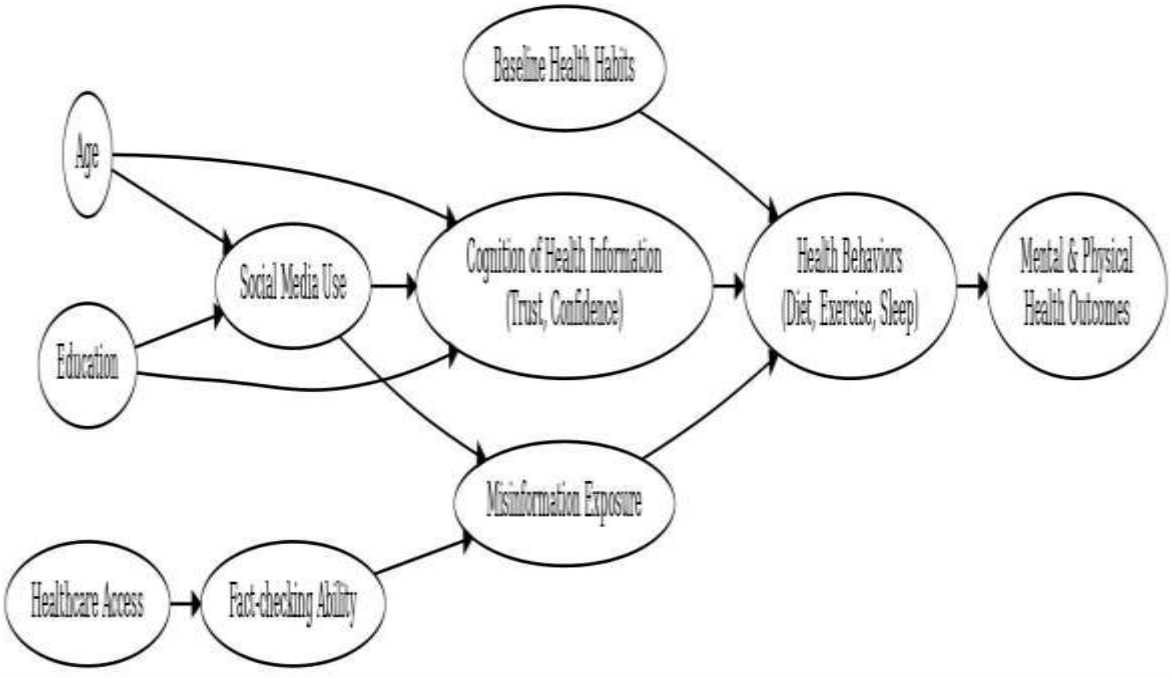
Prior to commencing the main study, a pilot study - with a structured questionnaire comprising of both open as well as closed ended questions was administered to 30 randomly selected students for checking the validity of the questionnaire. The questionnaire apart from demographics included questions regarding their time of usage of internet, the platform they visit in case of a physical, mental or social ill health to seek preliminary advice, and whether they were able to distinguish between factual and or mythical content online; with open ended questions for obtaining qualitative data for which health trends they followed using online media, details of checking and debunking content available online and other predicted outcomes. Qualitative responses were analyzed using thematic analysis.

The quantitative data was analyzed using the GNU PSPP Statistical Analysis Software for the descriptive analysis Frequencies, mean+/-SD, Chi square test and Spearman's test was used for association and correlation at confidence interval 95% (p value was set at <0.05).

Both these findings were finally converged to conceptualize the current trend of internet usage for health determinants.
Independent variables included social media exposure characteristics such as duration of use, platforms utilized, and frequency of seeking health advice. Dependent variables comprised health behavior changes, mental and physical health outcomes, and health-related decision- making. Potential confounders including age, education level, baseline health status, healthcare access, and prior health routines were adjusted for in multivariable analyses.

(^) sample size calculated by OpenEpi, Version 3, open source calculator—SSPropor- attached as Annexure

A directed acyclic graph (DAG) to represent the study



Socio-demographic variables, baseline health behaviors, and healthcare access were treated as confounders. Cognition-related variables such as trust, confidence, and fact-checking behavior were modeled as mediators influencing health behaviors and outcomes.

RESULTS

Basic Demographic data: A total of 366 responses to the survey taken equally from both the cities Nagpur and Bhubaneshwar and were considered for data evaluation. Out of which 306 participants were females, 59 were males, and 1 did not prefer to disclose the gender.

125 had completed their High school and were in various years of their higher studies, 231 had already completed their Diploma or Bachelors and 10 were pursuing Masters.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 1| January2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

312 out of 366 were consumers of online data and only 44 among them were also content creators, and most of them verified before posting anything online but 4 out of the content creators did not verify the content before posting their content online.

Time spent on social media

	Less than 1 hour	37
	1-3 hours	275
	>3 hours	54
	Overall 329 (89.89%) respondents spent more than 1 hour on social media.	

Advice seeking pattern on social media

Type and frequency	Dietary advice	Physical Health Advice	Mental health Advice	Medical advice	Dental Advice
Never	38	32	60	63	84
Rarely	70	68	87	88	103
Sometimes	141	150	123	142	108
Often	88	90	71	58	57
Always	29	26	25	15	14
Total	366	366	366	366	366

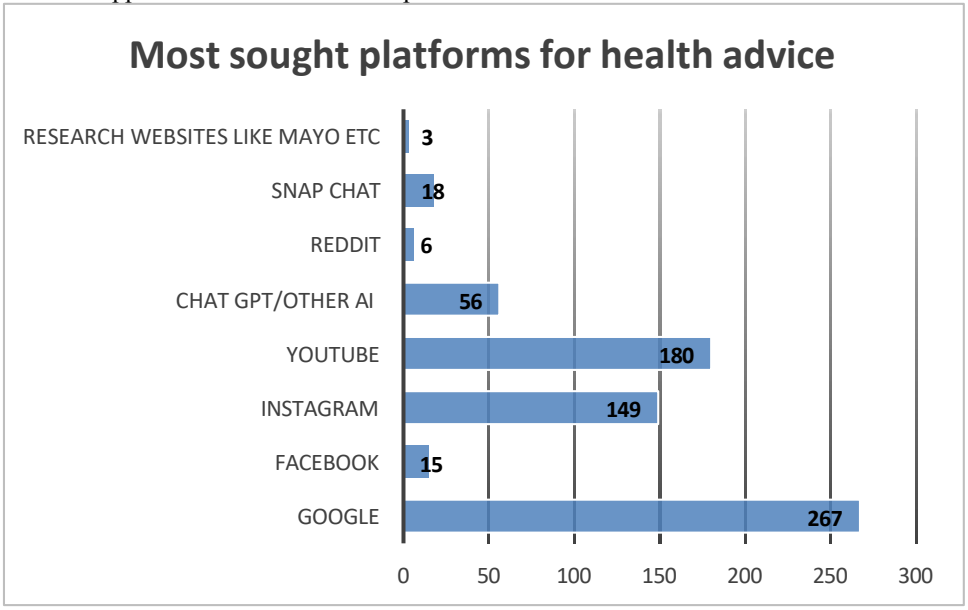
Verification of online content: A staggering 248 (67.7%) participants rarely verified online health advice received on social media with professional healthcare advisor; among which 53(14.4%) participants never verified factuality of the content. Those who verified the health advice online.

Influence on eating/exercise routine: 75 out of 366 participants claimed to have no influence whereas 80 participants had moderate to strong influence on their eating or exercising routine.

Self-Medication/Self Supplementation: 299 did not self-medicate or self-supplemented themselves; and only 67 participants took some supplement like biotin or protein powder or painkillers to relieve mild to moderate pain based on social media data/content.

Trust on traditional methods like books/ physical doctor consultation: 247 participants agreed to the point that compared to traditional sources like physical doctor consultation and advice and books they had lesser trust on social media content related to health info.

Platforms most visited for health advice (participants asked to mention all that they used) Shows highest used platform to be google followed by YouTube, Instagram, chatgpt and Facebook; some other platforms were also rarely used.



Misleading Information received online: a 115(31.4%) participants reported to have received misleading information online to those in search of an advice online without physically visiting the doctor.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 1| January2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

80(21.8%) participants have stopped after debunking a mythical advice on the online content.

Impact on Health: 22(6%) claimed to have worsened their health with their time on social media 73(19.9%) claimed to have improved their health 271(74%) among had reported - no change in their health status.

Participants' baseline health habits and change in habits if any: Only 69(18.8%) followed some or the other routine prior to social media like exercise, yoga, morning walk etc., and 252(68.8%)

participants did not change but 114 (31.1%) had changed their health decision post compared to prior usage of social media. Their confidence level about distinguishing factual to mythical information in online content and it was found that

Confidence in distinguishing mythical and Factual content online	
Not confident	24(6.5%)
Slightly confident	98(26.7|%)
Moderately confident	172(46.9%)
Quite confident	54(14.7%)
Very confident	18(4.9%)

Current sleep and stress levels: 140(38.2%) individuals pointed out on the fact that usage of social media decreased their sleep and increased the anxiety level, 196(53.5%) did not report any change in sleep or stress levels, and 30(8.1%) participants claim to have increased sleep but also increased stress level.

Although 100 participants have mentioned social media being beneficial / very helpful for their health, 86 participants claimed it to be harmful and the rest 180 opined it being neither harmful nor helpful for their health.

Prediction/belief if they quit/reduce social media usage: 300(81.9%) out of 366 participants predicted to have better sleep less anxiety and better time management if they reduced social media use. A statistically significant impact on usage of social media "Perceived negative impact of social media on health showed a significant positive correlation with sleep disturbance and stress levels (Spearman's $\rho = 0.42$, $p < 0.001$)."

"Frequent seeking of mental health advice on social media was significantly associated with higher likelihood of encountering misleading health information ($p = 0.002$)."

DISCUSSION

In this study we found that there is a perception of negative impact of social media on health, and high chances of coming across deceptive content on seeking advice online among youth of both Nagpur as well as Bhubaneshwar students.

A collective result of the full sample is given above as no statistical (quantitative)/thematic (qualitative) difference was seen among the students of Nagpur and Bhubaneshwar city.

As the target population was students of Dental and paramedical college all had completed minimum higher secondary school (12^{th}) which was also the intention to target the youth for this study.

All the students were consumers of online content with only 44 out of them also being creators of content online. It was found that 4 students who were content creators did not verify the content before posting anything online which is almost 10 percent. This highlights a fact that there is no gatekeeping available for posting only verified content online, in today's world one is free to post anything which gains more views irrespective of it being authentic/no. this finding was similar to the one quoted in a systematic review by Bernadette Paul and Sely-Ann Headly- Johnson who also stated that there are unprecedented opportunities for healthcare promotion online. [6]

In this study nearly 90% of the respondents spent more than 1 hour online consuming content online, a paper by B Keles et al highlighted that the higher the time spent on SNS (Social Networking sites) was associated with stress and anxiety. Similar finding were recorded of the findings of the study by Abinaya M. and Elena Fumagalli et al also stated considerable amount spent on social media is addictive and can affect the psychological well-being of adolescents [1, 7, 8] Although this paper only deals with the cognition (perception) of youth with social media & its content and health, studies regarding stress and anxiety need to be focused on youth in India as well.

In advice seeking pattern it was recorded that

a. 299(81.6%) participants had sought for online dietary advice- rarely, sometimes, often; 29 – (7.9%) always sought for dietary advice online, only (10.3%) - 38 participants never sought online dietary advice.
b. 300(81.9%) participants sought for online physical advice- rarely, sometimes, often; 26 – (7.1%) always sought for physical advice online, only (8.7%) - 32 participants never sought online physical advice.
c. 281(76.7%) participants sought for mental advice – rarely, sometime, and often; 25 – (6.8%) always sought for mental health advice online whereas (16.3%) 60 participants never sought for mental health advice online.
d. 288(78.6%) participant sought for medical advice –

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 1| January2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

rarely, sometime and often; only 15(4%) always sought for medical advice online and (17.2%) 63 participants never sought any medical advice online.

e. 268(73.2%) participants sought for dental advice online – rarely, sometimes or often; only 14(3.8%) always sought for dental advice online and (22.9%) 84 participants never sought for any dental advice online.

On an average only 5.92% participants always and 15 .08% never sought for any Dietary, Physical, Mental, Medical or Dental advice online.

This study tries to detect the advice seeking pattern online which on an average shows that 78.8% seek dietary physical mental medical or dental advice rarely/sometimes /often; whereas most of the studies done previously have targeted on assessing the mental health of adolescents and youth and associated it with use of social media and most of it have concluded in similar manner stating use of social media impacts the mental health of young minds. [7, 8, 9]

This study also persuaded to check whether the advice participants sought online was verified or no to which it was found that 248 (67.7%) participants rarely verified online advice by physically visiting an expert, 53 (14.4%) participants never verified the content by an expert which shows that the influence of social media has changed the way of distinguishing between what's right and wrong and the youth is now more dependent on social media content, which if not monitored now would negatively impact their mental health, this was in unison with studies done by betul keles et al; and Mireya Marquez and Nancy J. Karling who highlighted that Generation Z report a more negative impact on mental health as influenced by the use of any of the three prominent forms of social media.[1, 8]

Although in this study only 67(18.3%) self-medicated or self-supplemented themselves with painkillers, biotin, vitamin, protein supplements there is a need to regulate availability of various medications and supplements to be available over the counter as over consumption of these medications or supplements may have adverse effects and there is also a need for regulating the availability of such medicines and supplements the need for more stricter regulations is also highlighted in the paper by Prashant Narang et al stated Prioritizing the utmost safety of the consumers and evident need of strong regulatory framework with respect to OTC drugs.[10]

The most sought platform online for medical advice was google followed by YouTube, Instagram, chat gpt. Chat gpt being the new advanced AI Chabot from Open AI it uses large language model (LLM) to understand and generate human-like text, acting as versatile assistant for writing, coding, answering questions, explaining complex topics, and brainstorming ideas, essentially providing direct, conversational answers rather than just list of links like traditional search engines. All search engines including Chat gpt are undoubtedly gaining momentum for searches for dietary, physical, mental, medical and dental advice, this study also highlighted misleading information received online by 115 participants, 80 participants also claimed to have debunked a mythical information online and have stopped some or the other practice they had picked up via online content. Although chat gpt uses LLM its use has to be done with wariness and critical assessment which was also highlighted by Jeyaraman M et al. [11] William C Culp Jr also highlighted that chat gpt can make mistakes and should be used with caution quoting a reply from Chat gpt "ChatGPT: You're correct, my previous response was not accurate. I apologize for the confusion. Since I don't have access to any specific data on this topic. As an AI language model, I generate responses based on patterns in the data I was trained on, and I may occasionally produce errors or inaccuracies." [12]

This study to check cognition of health information available online further targeted Confidence in distinguishing mythical and Factual content online to which the survey found that only 19.6% people were quite to very confident about distinguishing between factual and mythical content online. Majority participants 80.4% were not confident/ slightly confident or merely moderately confident being able to distinguish factual and mythical content online. The age till 24 which is target population of this study and also nearly 50% of Indian population struggle to make certain important decisions for their own; this could be due to a fact also highlighted by Tanya jain in her paper that by the age 25 intellect is still in the establishment phase which needs to be nurtured and groomed for better decision making as these youngsters grow.[13]

This study further analysed changes in sleeping patterns 46.3% participants reported changes in sleeping patterns because of social media usage among which 38.2% reported to have decreased sleep and 8.1% participants increased sleep. Change in regular sleeping patterns gravely affects one's health, and use of social media to be the culprit of this change would affect individuals mental health negatively,[9] this finding is supported by Marta Rutkowska et al who also states that Sleep disorders pose an increased risk for mental health disorders, such as anxiety, stress, depression and ADHD[7, 14] 86 participants of this study also agree to the fact that use of social media was harmful for their health.

Participants of current study were asked to predict the changes in their lives ones they reduce the use of social media to which majority 300 participants predicted for a positive and better outcome like better sleep, better time management and less stress, as there is no ostiary in content available online the media such youth are targeted seems to be stressful and engaging which when reduced proportionally reduces stress and give opportunity to mange time efficiently. This was similar to the conclusive of Fumagalli et al's paper that social media is addictive and a considerable amount of time is spent [8] this directly or indirectly induces stress to complete the more

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 12| Issue: 1| January2026|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

important works and daily chores in time as it gets wasted on social media and eye fatigue may cause mental tiredness which also reduces the grasping power.

As this being 1st of its kind cross sectional study on only Dental and paramedical students; we can only predict the association and not causation for seeking health advice and encountering misleading information. For broader generalization further longitudinal studies targeting general population and other age groups as well shall be considered in future studies.

CONCLUSION

To summarize that although participants had perception of social media negatively impacting their lives it was seen that youth of dental and paramedical colleges had been seeking advice from social media; their mental process of acquiring knowledge which most important aspect to identify their cognition. It was also seen that there were higher chances of encountering misleading information online which calls for stronger gatekeeping for posting and consuming available content online especially for dietary, physical, mental, medical and dental advising. As information becomes more abundant and increasingly consumed through the inescapable digital screens, the brain's methods of organizing information may be reshaped hence it is needed to train youth to critically evaluate before believing any available information on social media.

REFERENCES

1. *Betul Keles, Niall McCrae & Annmarie Grealish (2020) A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents, International Journal of Adolescence and Youth, 25:1, 79-93, DOI: 10.1080/02673843.2019.1590851*
2. *Kanchan S, Gaidhane A (January 13, 2023) Social Media Role and Its Impact on Public Health: A Narrative Review. Cureus 15(1): e33737. DOI 10.7759/cureus.33737*
3. *Kantar; Internet and Mobile Association of India (IAMAI). Internet in India 2024. Mumbai: Kantar ICUBE; 2024.*
4. *Lara RS, Bokoch R. Cognitive functioning and social media: Has technology changed us? Acta Psychol (Amst). 2021;221:103429. doi:10.1016/j.actpsy.2021.103429.*
5. *Linktree. The 2022 Creator Report. Sydney: Linktree Pty Ltd; 2022.*
6. *Paul, B.; Headley-Johnson, S.-A. The Impact of Social Media on Health Behaviors, a Systematic Review. Healthcare 2025, 13, 2763. https://doi.org/10.3390/ healthcare13212763.*
7. *Abinayaa, M. (2023). Social Media Addiction and Its Impact on Mental Health Among Adolescents. International Journal of Indian Psychology, 11(4), 2484 2490. DIP:18.01.231.20231104, DOI:10.25215/1104.231*
8. *Fumagalli E, Shrum LJ, Lowrey TM. The effects of social media consumption on adolescent psychological well-being. J Assoc Consum Res. 2024;9(2):120–124. doi:10.1086/728739.*
9. *Burnell K, Nesi J. Adolescent social media use and mental health: Current research and future directions. J Am Acad Child Adolesc Psychiatry. 2023;62(10 Suppl):S409. doi:10.1016/j.jaac.2023.07.933.*
10. *Narang P, Garg V, Sharma A. Regulatory, safety and economic considerations of over- the-counter medicines in the Indian population. Discov Health Syst. 2023;2(1):17. doi: 10.1007/s44250-023-00032-y. Epub 2023 May 22. PMID: 37251102; PMCID: PMC10201516.*
11. *Jeyaraman M, K SP, Jeyaraman N, Nallakumarasamy A, Yadav S, Bondili SK. ChatGPT in Medical Education and Research: A Boon or a Bane? Cureus. 2023 Aug 29;15(8):e44316. doi: 10.7759/cureus.44316. PMID: 37779749; PMCID: PMC10536401.*
12. *Culp WC Jr. Artificial intelligence and ChatGPT: Bane or boon for academic writing? J Educ Perioper Med. 2023;25(2):1–3.*
13. *Jain T. & Joshi P. (2021). The Stage of Young Adulthood: Challenges and Issues in Career Choices. International Journal of Indian Psychology, 9(2), 2023-2030. DIP:18.01.201.20210902, DOI:10.25215/0902.201*
14. *Rutkowska, Marta, Bieńko, Mateusz, Król, Tomasz, Toborek, Michalina, Marchaj, Magdalena, Korta, Karolina, Putra, Anna, Niedziela, Natalia, Margas, Mikołaj And Bednarz, Karolina. Sleep Cycles and Health: Role of Sleep Stages, Circadian Rhythms, and Lifestyle Factors on Optimizing Physical Performance and Mental Well-Being – a literature review. Quality in Sport. 2024;18:53393. eISSN 2450-3118. https://dx.doi.org/10.12775/QS.2024.18.53393*

Source of Funding: NIL
Conflict of interest: Authors declare to have no conflict of interests.