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Lifestyle Pattern, Psychological Health, Physiological Activities and Its Impact on Daily Performance of Degree Scholars in Chitradurga City

Divith H[1], Ashif[1], Malsawmkimi Chenkual[1], Yogananda R[2], Abhijit Kumar Dalal[2]

[1]Pharm D Interns, SJM College of Pharmacy, Chitradurga, Karnataka, India.

[2]Professor, Department of Pharmacy practice, SJM College Of Pharmacy, Chitradurga, Karnataka, India.

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ABSTRACT

Maintaining a healthy lifestyle is a model approach in maintaining health of students in society. One of the main aims of the educational institution is to improve the academic achievements of the students. Determining the correlation between the following sets of variables: (a) eating pattern and academic performance (b) sleep cycle and academic performance (c) extracurricular activities and academic performance (d) psychological and physiological activity on academic performance or daily performance, has provided an accurate insight into the impact of lifestyle, psychological health, physiological activities on academic performance. **OBJECTIVES:** To evaluate the distribution of similar Lifestyle Characteristics in students. And to assess the correlation between lifestyle pattern, psychological health and physiological activity on daily performance in degree school students using which the students are categorized by using the parameters (lifestyle, psychological health and academic performance) in degree students in Chitradurga city.**MATERIALS AND METHODS:** A questionnaire was provided to the participants to determine their lifestyle pattern, psychological health, physiological activities then these responses are used to make a correlation with academic performance. Statistical data were analysed using SPSS IBM version 29, MS Excel spread sheet version 2016 and power BI **RESULTS:** The total participants with good lifestyle are 146 (49.1%) out of which 80 (54.7%) had average academic performance, 24 (16.4%) had bad academic performance, 42 (28.7%) had good academic performance. The total participants with bad lifestyle are 151 (50.8%) out of which 65 (43.04%) had average academic performance, 41 (27.1%) had bad academic performance, 45 (29.8%) had good academic performance. This clearly shows that the number of participants with bad lifestyle and bad academic performance is nearly double that is 41 (13.8%) Compared to participants with good lifestyle and bad academic performance that is 24 (8.08%). **CONCLUSION:** The findings revealed a concerning trend where participants with a poor lifestyle displayed nearly double the academic struggles compared to those with a good lifestyle but faced academic challenges. This suggests a strong association between lifestyle choices and academic performance. Furthermore, the study found that psychologically sound participants had a higher proportion of individuals achieving average and good academic performance, while fewer faced academic difficulties. This connection proves the influence of psychological well-being on academic outcomes.

KEYWORDS: Lifestyle pattern, psychological health, Physiological activities, Academic performance.

INTRODUCTION:

Maintaining a healthy lifestyle is a model approach in maintaining health of students in society. One of the main aims of the educational institution is to improve the academic achievements of the students.

Recent years have witnessed a rapid change in lifestyle due to the availability of the wide range of high fat and high caloric foods, telecommunication devices such as smart phones, social media etc. Another path to understanding the relationship between lifestyle and academic performance is through stress. Though efforts have been made by researchers to understand the impact of psychosocial health on academic performance in several countries across the globe for college students, very limited studies focus on adolescent's stressors and their influence on student performance. Psychosocial health includes aspects such as social behavior, stress and, other mental disparities. To determine the correlation between the following sets of variables: (a) eating pattern and academic performance (b) sleep cycle and academic performance (c) extracurricular activities and academic performance (d) psychological and physiological activity on academic performance or daily performance[1].

Eating pattern has been linked with various factors like psychosocial health, economic status deterioration caused due to peer pressure and, overeating respectively. In today's world that is dominated by the idea of consumerism people have been exposed to a lot of unnecessary eating habits which have consistently tampered with the normal eating routine which used to be based on hunger mitigation and has moved to unnecessary dopamine release by consumption sugary and carbohydrate rich foods. People from the higher economic strata are sufficient in their capability to consume foods that fulfil their daily nutritional requirements but the people from the lower economic strata are incapable of providing themselves or their children with the necessary nourishment which leads to nutritional deficiency in economically backward communities. One of the mostly important indicators of unhealthy lifestyle is having food at irregular intervals, the body gets accustomed to a particular time at which you have food and starts signaling your salivary glands to salivate and you start feeling hungry but if you change your eating routine every day then your body will try to emulate the changes and this adversely impacts your body.

Poor sleep habits have been related to poor academic and daily performance, with many hypothesized mechanisms such as decreased sympathetic nervous system activity, changes in mood, inattention, decreased decision making skills, increased risk of depression, and lack of effortful control However, despite the common knowledge of needing sleep to perform well in school, many questions surrounding the relationship between sleep and academic or daily performance remain such as the importance of bedtimes, sleep duration and sleep quality.[2]

Positive Psychosocial health is a genuine determinant of proper or adequate physical or extracurricular activities. Negative psychosocial health can be detrimental to physical activities.[3]

MATERIALS AND METHODS:

Study site and participants:

This study was conducted among students studying in degree colleges in Chitradurga. Amrutha Ayurvedic Medical college, Chitradurga, SLV college of Nursing, Chitradurga, SRS first grade college, Chitradurga, SJM college of Nursing Sciences, Chitradurga. This study was conducted for a period of 6 months. There were 297 participants who met the inclusion criteria. students with backlogs and students diagnosed with medical condition were excluded from the study.

Ethical approval:

I.Statement of ethical approval: The study was approved by the SJM College of Pharmacy Institutional Ethics Committee on human subjects' research. Ref No. SJMCP/100/2023- 24 dated on 06th May 2023. Subject confidentiality was maintained during and after data collection.

II. Statement of informed consent: Informed consent was obtained from all individual participants included in the study.

Validation of Questionnaire:

Validated by Dr. Vagesh Kumar S.R. professor and HOD BMCH

Data collections and study procedure:

A six-month descriptive observational study was carried out in degree students in Chitradurga. Protocol was prepared and submitted. Data collection form was prepared and validated. The study commenced after obtaining the approval from the Institutional Ethics Committee (IEC), the questionnaire was distributed to the students who were studying in degree colleges. The data was collected with their consent and confidentiality was maintained when handling the data. A self-administered data collection form which consists of: A.) Lifestyle pattern. B.) Psychological and Physiological activity. C.) Academic performance. The data was collected as per the objective of the study.

TOOLS FOR ASSESSMENT:

The tools used in the current study as the following:

Tool 1: Questionnaire based point's categorisation analysis.

In this method the questionnaire has been classified into 3 parts.

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a.) Lifestyle pattern (Containing 4 questions Q1, Q2, Q4, Q7) table 1

Question	Option	Points when option is selected	Total Points	Result
Q1	<4hrs	0	1	If points is ≥ 3 then classified as Bad lifestyle. If points is <3 then classified as Good lifestyle
	4-6hrs	0		
	6-8hrs	1		
	>8hrs	1		
Q2	Frequently	0	1	
	Moderately	0		
	Occasionally	1		
	Never	1		
Q4	None	1	1	
	<1hr	1		
	1-2hr	1		
	2-4hr	1		
	>4hr	0		
Q7	Rarely	0	1	
	Occasionally	1		
	Regularly	1		
	Frequently	1		
	Always	1		

Wherein each option in the question is given points and the if sum of the points is ≥ 3 then he has a Good lifestyle ,if the sum of the points is <3 then he has a Bad lifestyle.

b.) Psychosocial health (Containing 3 questions Q8, Q9, Q10). Table 2

Question	Option	Points when option is selected	Total Points	Result
Q8	Zero	1	1	If points is ≥ 1 then classified as Sound Psychological health. If points is <1 then classified as Unsound psychological health.
	1-3	0		
	4-6	0		
	7-9	0		
	10	0		
Q9	Yes, frequently	0	1	
	Yes, occasionally	0		
	Yes, rarely	1		
	Never	1		
Q10	Yes, frequently	0	1	
	Yes, occasionally	0		
	No not at all	1		

Wherein each option in the question is given points and the if sum of the points is ≥ 1 then he has a Sound Psychological health, if the sum of the points is <1 then he has an Unsound psychological health.

c.) Academic Performance (Containing 3 questions Q16, Q17, Q18). Table 3

Question	Option	Points when option is selected	Total Points	Result
Q16	<40	0	1	If points is =3 then classified as Good Academic Performance If points is =2 then classified as Average Academic Performance. If points is ≤ 1 then classified as Bad Academic Performance
	41-60	0		
	61-70	1		
	71-80	1		
	>80	1		
Q17	excellent	1	1	
	Above average	1		
	Average	0		
	Below average	0		
	Poor	0		
Q18	Yes, frequently	0	1	
	Yes, occasionally	1		
	No, rarely	1		
	No, never	1		

Wherein each option in the question is given points and the if sum of the points is = 3 then he has Good Academic Performance, if the sum of the points is =2 then he has Average Academic Performance, if the sum of the points is ≤1 then he has Bad Academic Performance.

Then the correlation is drawn between

a.) Lifestyle VS academic performance

b.) psychological health VS academic performance

Statistical analysis:

All the data was entered in Excel and power BI and tabulated using SPSS version 29 software. A questionnaire was provided to the participants to determine their lifestyle pattern, psychological health, physiological activities then these responses are used to make a correlation with academic performance.

RESULTS:

In this Questionnaire based descriptive observational study, data was collected from a total of 297 degree college students. Demographic details including age, gender and details about psychological health, Lifestyle pattern, physiological activities, and Academic performance was rationalised using Questionnaire based point's categorisation analysis.

Demographic Details:

A total of 297 participants participated with the study. The participants aged 17 represent only 3 (1%) and the participants aged 20 represent 101 (34%) respectively of the total participants. The results are shown in the Table 2 followed by graphically represented in the figure No: 1.

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Table 4: Details of Age Group classification (n=297).

Age	Frequency	Percentage %
17	3	1
18	23	7.7
19	68	22.9
20	101	34
21	43	14.5
22	52	17.5
23	7	2.4
Total	297	100

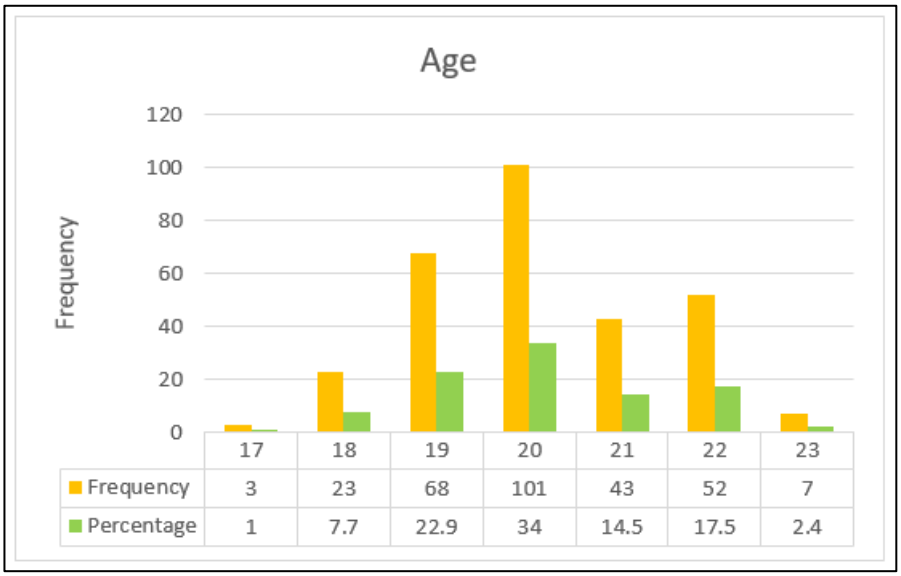

Fig. No 1: Details of age group classification.

2. Details of Gender wise Distribution.

The gender wise distribution shows that out of 297 participants 133 (44.8%) were males and 164 (55.2%) were females.

Questionnaire response:

Table 5:

Question	Options	Percentage
1. Average sleep duration in a day.	**<4hr** **4-6hr** **6-8hr** **>8hr** **Total**	**4.4** **22.6** **50.1** **22.9** **100**
2. Consumption of fast food or unhealthy snacks.	Frequently (3-4 times per week) Moderately (1-2 times per week) Never Occasionally (1-2 times a month) Total	18.5 49.5 4.4 27.6 100
3. Categorization of fast food.	Any food other than home cooked food Beverages, Alcohol, etc Oily or sugary treats Restaurant food	68.7 1 12.5 17.8

	Total	100
4. Time spent on an electronic device.	1-2 hours 2-4 hours Less than 1 hour More than 4 hours None Total	24.9 27.3 5.4 41.1 1.3 100
5. Use of electronic device for Consumption of multimedia.	<1hr >5hr 1-2hr 2-3hr 3-4hr 4-5hr Do not use Total	27.6 1.3 33.3 14.8 3.4 12.5 7.1 100
6. Use of electronic device for education.	<1hr >5hr 1-2hr 2-3hr 3-4hr Do not use Total	27.9 1.7 29.3 27.6 6.1 7.4 100
7. Use of electronic device for social media.	<1hr >5hr 1-2hr 2-3hr 3-4hr 4-5hr Do not use Total	17.8 3 19.5 33.3 15.2 2.7 8.4 100
8. Taking breaks during study or work sessions.	Always (Take break after short intervals) Frequently (multiple times per hour) Occasionally (1-2 times during long study) Rarely (Almost never) Regularly (Every hour or so) Total	10.1 19.5 33 11.4 25.9 100
9.Engaged in relaxation.	Always (Everyday) Frequently (2-3 times a week) Occasionally (1-2 times a week) Rarely (Almost never) Regularly (2-3 times a week) Total	11.4 6.7 39.7 22.2 19.9 100
10. Describe yourself.	Ambivert Extrovert Introvert Total	36.7 32.7 30.6 100
11. Rate your stress level.	0 (No stress) 1-3 (Mild stress) 4-6 (Moderate stress) 7-9 (Severe stress) 10-(very high) Total	27.3 27.9 30 11.8 3 100
12.Overwhelmed with academic workload and responsibilities.	No, never overwhelmed Yes, rarely overwhelmed Yes, occasionally overwhelmed Yes, frequently overwhelmed Total	17.2 32.7 36.4 13.8 100

13. Experienced any symptoms of anxiety or depression in the past six months.	No, not at all Yes, frequently Yes, occasionally Total	55.6 14.5 30 100
14. Engage in social activities or spend time with friends.	Frequently (Several times a week) Occasionally (1-2 times a month) Rarely (Almost never) Very frequently (Several times a week) Total	27.3 29.3 14.8 28.6 100
15. Support system (family, friends, or mentors) to can rely on.	I'm not sure No, I don't have a support system Yes, I have a strong support system Yes, I have some support from family, friends Total	12.5 8.4 36.7 42.4 100
16. Handling of critical scenario.	Engaging in physical exercise or sports activities Face it bravely Others Practicing relaxation techniques like Meditation Pursuing hobbies or activity you enjoy Seeking support from family, friends, or mentors Use Beverages, Alcohol, Cigarettes Total	15.2 15.8 5.4 15.2 16.5 28.6 3.4 100
17. Classification of the intensity of your physical activity.	Intense (Football, Kabaddi etc) Light (Morning Walk, Meditation etc) Mild (Jogging, Skipping etc) Moderate (Cricket, Hiking etc) Total	8.1 39.1 26.9 25.9 100
18. Consumption of drugs to improve your physiological performance.	No Yes, creatine Yes, vitamin supplements Total	98.3 1.3 0.3 100
19. Consumption of drugs to improve your psychological health.	No Yes, Alcohol Total	99 1 100
20. Percentage in the current academic year.	Below 40 41-60 61-70 71-80 Above 80 Total	3.7 11.4 35 36.7 13.1 100
21. Self-assessment of your own academic performance.	Excellent Above average Average Below average Poor Total	10.1 31.6 53.2 3.4 1.7 100
22.Trouble concentrating during study sessions.	No, never Yes, frequently Yes, occasionally Yes, rarely Total	5.1 22.6 41.8 30.6 100
23. Frequency at which you miss classes or assignments due to personal reasons.	frequently Occasionally Rarely Regularly Very Frequently	4 30.6 45.1 16.2 4

	Total	100
24.Did you Approach the academy for any academic support services or counselling during your time at this college.	I am not aware of the academic support services No, I have utilized any academic support services Yes, I have sought counselling services Yes, I have utilized academic support services Total	16.8 50.5 10.1 22.6 100
25. Classification of Academic performance.	Average academic performance Bad academic performance Good Academic Performance Total	145 65 87 297
26. Classification of lifestyle.	Bad lifestyle Good lifestyle Total	151 146 297

Results of the study:

Lifestyle pattern VS Academic performance.

The total participants with good lifestyle are 146 (49.1%) out of which 80 (54.7%) had average academic performance, 24 (16.4%) had bad academic performance, 42 (28.7%) had good academic performance.

The total participants with bad lifestyle are 151 (50.8%) out of which 65 (43.04%) had average academic performance, 41 (27.1%) had bad academic performance, 45 (29.8%) had good academic performance.

This clearly shows that the number of participants with bad lifestyle and bad academic performance is nearly double that is 41 (13.8%) Compared to participants with good lifestyle and bad academic performance that is 24 (8.08%). The results are presented in Table 6 followed by graphically depicted in Figure no: 2.

Table 6: Lifestyle pattern VS Academic performance (n=297).

Academic performance	**Lifestyle**		**Total**
	Bad lifestyle	**Good lifestyle**	
Average academic performance	**65**	**80**	**145**
Bad academic performance	**41**	**24**	**65**
Good Academic Performance	**45**	**42**	**87**
Total	**151**	**146**	**297**

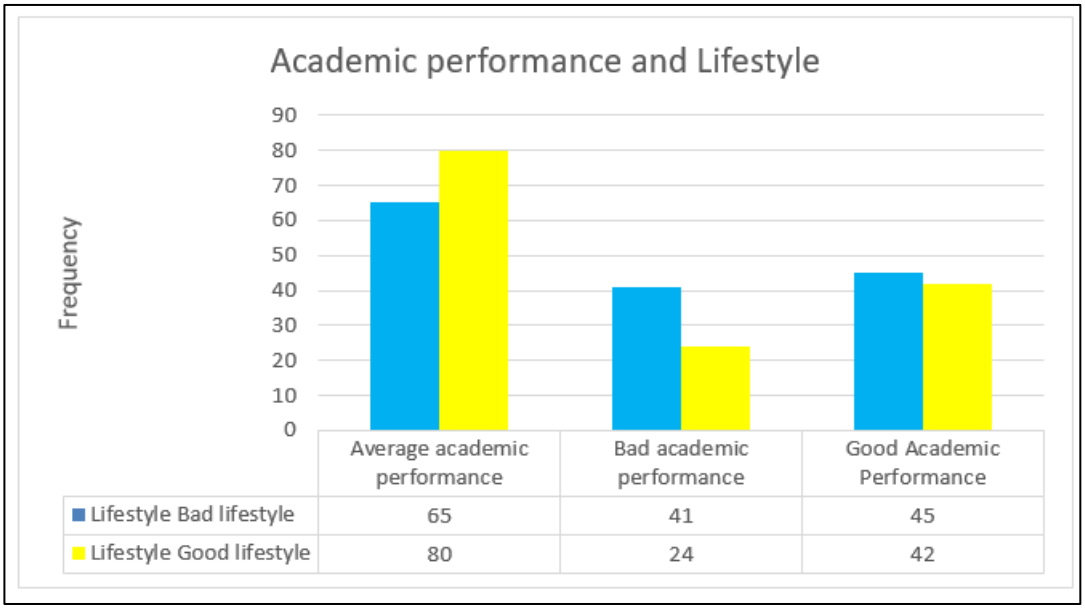

Fig.No 2: Lifestyle pattern VS Academic performance.

28. Psychological health VS academic performance.

The total participants who are psychologically sound are 178 (59.9%) out of which 91 (51.1%) had average academic performance, 31 (17.4%) had bad academic performance, 56 (31.4%) had good academic performance.

The total participants who are psychologically unsound are 119 (40.06%) out of which 54 (45.3%) had average academic performance, 34 (28.5%) had bad academic performance, 31 (26.05%) had good academic performance.

This clearly shows that the number of participants who are psychologically sound have a higher proportion of participants with average and good academic performance and a lower proportion of participants with bad academic performance. The results are presented in Table 7 followed by graphically depicted in Figure no: 3.

Table 7: Psychological health VS academic performance (n=297).

Academic performance	psychological health		Total
	psychologically sound	psychologically unsound	
Average academic performance	91	54	145
Bad academic performance	31	34	65
Good Academic Performance	56	31	87
Total	178	119	297

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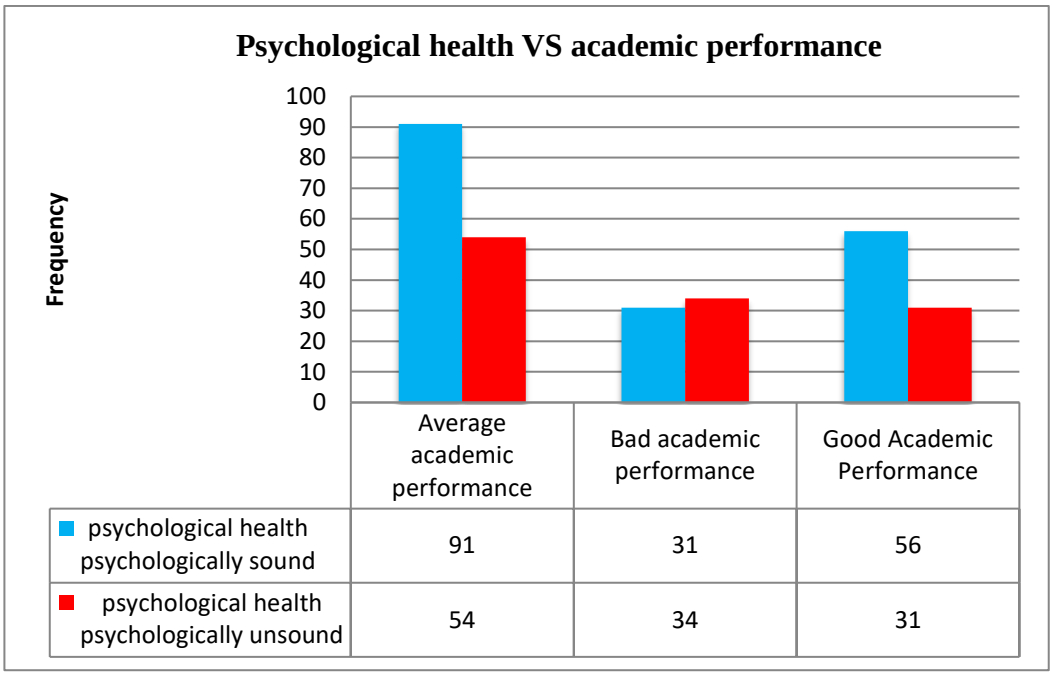

Fig.No 3: Psychological health VS academic performance (n=297).

DISCUSSION:

This study was a descriptive observational study. The main objective of this study was to assess the correlation between lifestyle patterns, psychological health and physiological activity on daily performance in degree school students. This study included 297 participants among which, 133 (44.8%) participants are male and 164 (55.2%) participants are female. participants with bad lifestyle and bad academic performance are nearly double that of participants with good lifestyle and bad academic performance. participants who are psychologically sound have a higher proportion of participants with average and good academic performance and a lower proportion of participants with bad academic performance. **Giuseppe Maniaci** conducted a study where he found that Academic performance was positively correlated with good diet, perceived social support, and self-esteem. A statistically significant difference emerged between students with high versus low correct grade point averages in relation to lifetime and current use of illegal drugs. Last, academic performance was negatively correlated with Internet use, perceived stress, and bad diet[1].

Michaela C. Pascoe conducted a study where she found that academic-related stress can reduce academic achievement, decrease motivation and increase the risk of school dropout[2].

Erin K conducted a study where he found that There were no associations between meeting sleep guidelines and academic performance; however later weekend bedtimes were associated with poorer academic performance on the Average Academic Index[3].

CONCLUSION:

The findings revealed a concerning trend where participants with a poor lifestyle displayed nearly double the academic struggles compared to those with a good lifestyle but faced academic challenges. This suggests a strong association between lifestyle choices and academic performance.

Furthermore, the study found that psychologically sound participants had a higher proportion of individuals achieving average and good academic performance, while fewer faced academic difficulties. This connection proves the influence of psychological well-being on academic outcomes.

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CONFLICT OF INTEREST:

The authors declare no conflicts of interest.

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