

# Student well-being: The role of exercise during the first year of academia

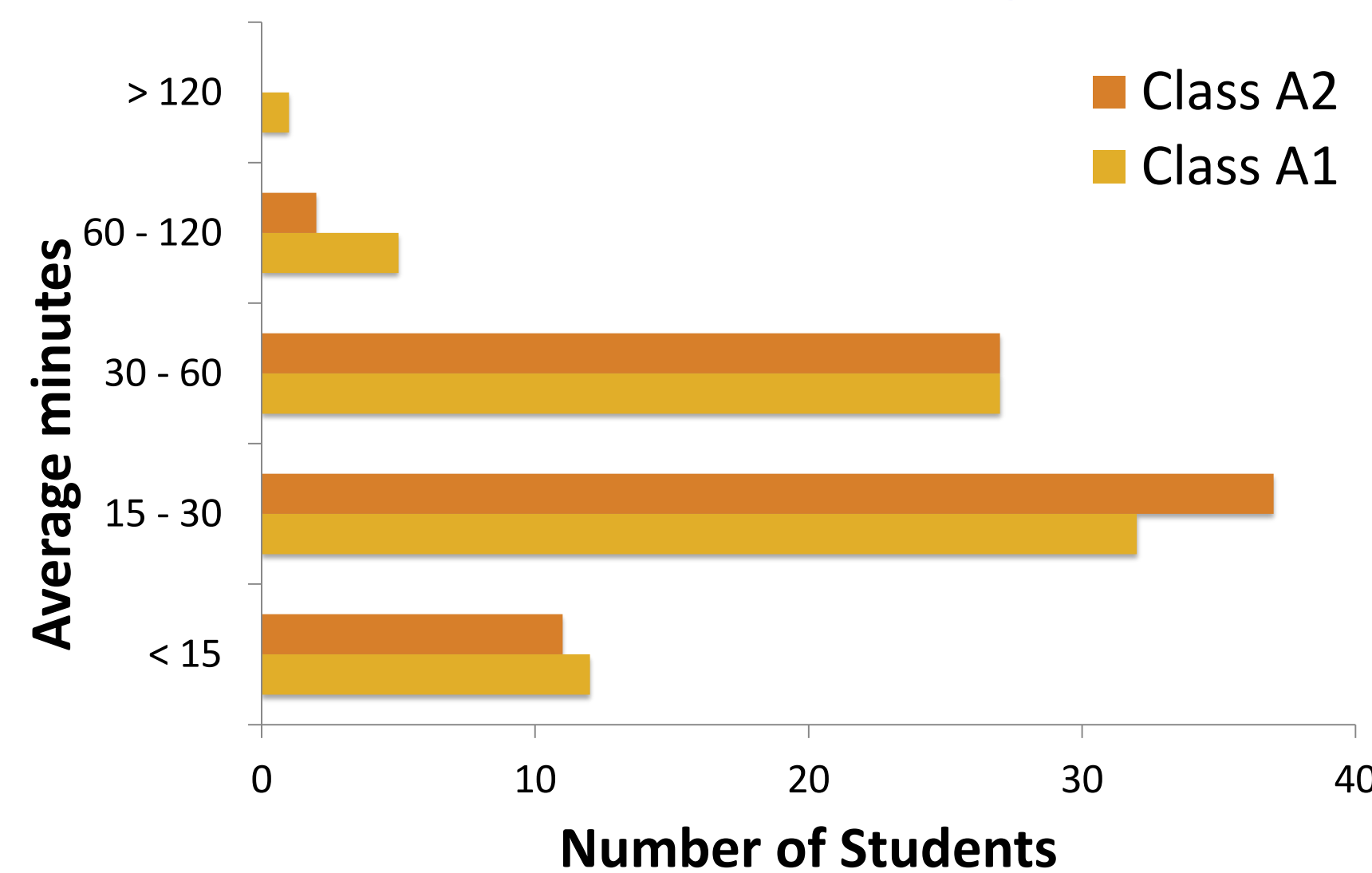
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## Introduction

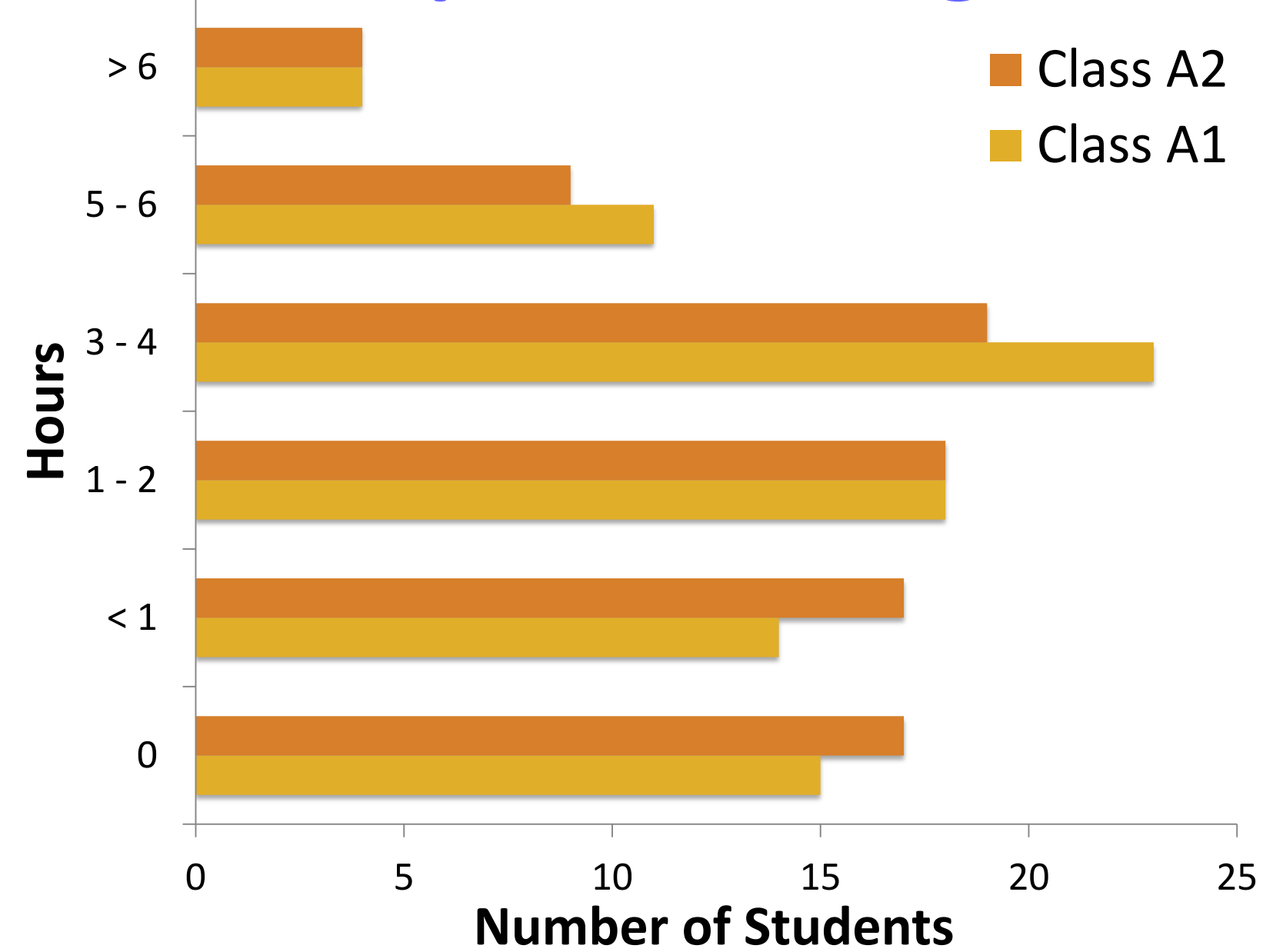
Physical activity is known to have many positive influences on well-being and academic success for postsecondary students. However, the first year of university is challenging as students explore a new environment and struggle to juggle academic, work, and social schedules, which may force some to put a regular commitment to physical fitness on the back burner. Health promotion and preventative health has been one of the main focuses of improvement in the Canadian health care system. Therefore, the prospective future health care providers, first year Health Science students, were surveyed to determine student's perceptions of possible benefits of and barriers to regular exercise, as well as types of exercise regularly used and extent of student commitment to a regular program of physical activity. Furthermore, one class of students was surveyed a second time, to evaluate the possible beneficial influence of exercise and health survey completion on subsequent student commitment to a lifestyle involving physical activity. The impact of this study will provide baseline data that can be used to create future strategies to promote and improve student's involvement in regular physical activity.

## Time Spent Walking Daily



**Figure 1.** There was no significant change ( $p=0.07$ ) in the amount of time students spent walking daily between the first and second survey completed by Class A ( $n=85$ ).

## Time Spent Working Out



**Figure 2.** A significant decrease ( $p=0.022$ ) in physical activity was noted between the first and second survey completed by Class A ( $n=85$ ). These results may be due to the fact that the second survey was conducted during the midterm period. Interestingly, only 16% of students thought that their level of activity had decreased, whereas 55% indicated that their perception was that it was unchanged and 21% actually thought it had increased.

## I work out because:

	Median		Stongly disagree		Disagree		Neither disagree or agree		Agree		Strongly Agree	
	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
Feels Good	Agree	Agree	2.01%	3.30%	2.01%	3.30%	12.8%	12.1%	36.9%	39.6%	41.6%	37.4%
Helps w Sleep	Neither	Neither	4.70%	3.30%	10.0%	13.2%	36.2%	37.4%	30.9%	31.9%	14.1%	9.3%
More Energy	Agree	Agree	2.01%	2.20%	6.71%	3.30%	19.5%	22.5%	43.6%	53.3%	24.2%	13.7%
Helps w stress	Agree	Agree	2.01%	1.65%	4.70%	4.40%	18.1%	18.7%	36.2%	42.3%	34.9%	28.0%
Improve Performance	Agree	Agree	0.67%	1.65%	2.01%	3.30%	12.1%	15.4%	42.9%	44.5%	37.6%	30.2%
Prevent disease	Agree	Agree	4.03%	2.75%	8.72%	7.69%	28.2%	31.9%	36.2%	39.6%	15.4%	12.6%

**Figure 3.** The greatest percentage of respondents (23%) in Class A ( $n=180$ ) and the greatest percentage of respondents (26%) in Class B ( $n=147$ ) reported spending between 1-2 hours working out per week. Both classes medians demonstrated that students agreed that working out helps them feel good, gain energy, reduce stress, improve physical performance and prevent disease Only 39% of student in both classes combined workout more than 3 hours a week.

## I don't work out because:

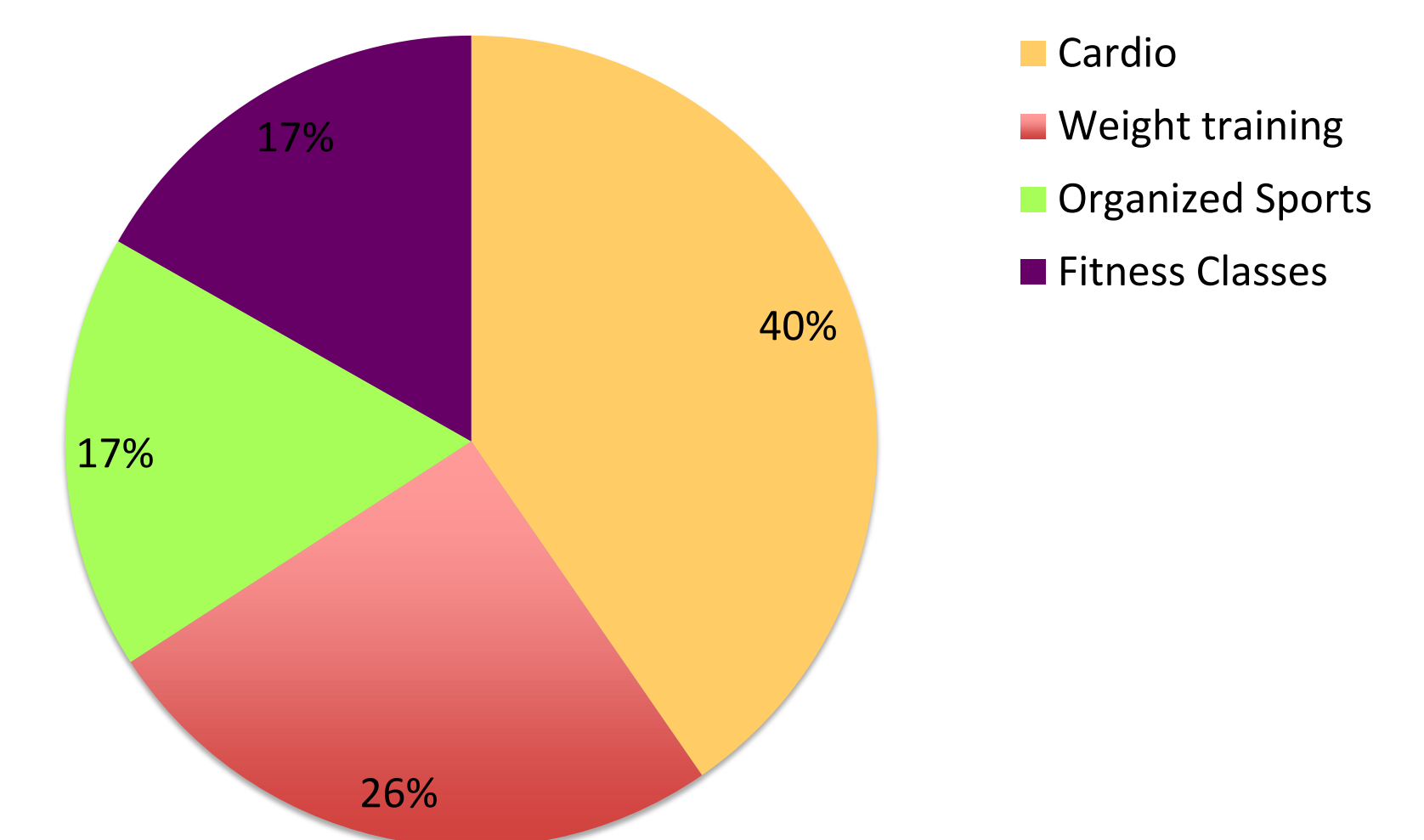
	Median		Stongly disagree		Disagree		Neither disagree or agree		Agree		Strongly Agree	
	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
Too expensive	Disagree	Disagree	38.3%	29.7%	36.9%	37.9%	10.0%	17.0%	8.05%	10.4%	1.34%	2.20%
No one to go with	Disagree	Disagree	32.2%	27.5%	24.2%	33.5%	18.1%	17.0%	17.5%	15.9%	2.68%	3.30%
Too much school work	Agree	Agree	10.1%	6.0%	9.40%	11.5%	17.5%	19.2%	40.9%	41.2%	16.8%	19.2%
Not the right services	Disagree	Disagree	18.1%	21.4%	38.3%	39.6%	28.9%	24.7%	6.71%	9.34%	2.01%	2.20%
Part-time job	Disagree	Disagree	31.5%	26.9%	32.9%	30.8%	13.4%	13.2%	14.8%	21.4%	2.68%	4.95%
Because of exams	Agree	Agree	4.03%	2.20%	9.40%	6.59%	11.4%	15.4%	32.2%	37.9%	36.2%	31.3%

**Figure 4.** In Class A ( $n=180$ ), 39% of students, and in Class B ( $n=147$ ), 31% of students, workout less than 1 hour a week. The median of both classes agreed that they don't workout because they have too much schoolwork and because they don't have enough time during exams. In both classes combined 61% of students workout less than 3 hours a week.

## Methodology

The purpose of this study is to examine the perceptions of two first year health sciences classes regarding the benefits and barriers to their involvement in regular programs of physical activity. Our sample was two first year undergraduate Health Science classes. One class of students (Class A) was asked to complete the survey twice – at the beginning of the semester and mid-way through the semester during midterm time. The surveys were anonymously coded to permit a paired analysis. The other class of students (Class B) was only surveyed once – mid-semester. Data collected from both sections included demographic information, types and timing of physical activity, and Likert-type questions and two short answer questions on perceived benefits of and barriers to regular exercise. A paired T test analysis of the two surveys provided to Class A, was used to determine whether simply thinking about exercise and its benefits during initial survey completion at the beginning of the semester encouraged some students to increase participations in physical fitness activities.

## Types of Physical Activity



**Figure 6.** The results of both classes of respondents combined ( $n=327$ ) indicated that they participated in the following types of physical activity: cardio (40%), weight training (26%), organized sports (17%), and fitness classes (17%).



**Figure 5.** Student from both class ( $n=347$ ) were asked to provide any other reasons not covered in the Likert-type question for the following short answer questions: why they workout or why they don't workout. The common recurrent themes for why they DO - are illustrated in the RIGHT cloud, and the reasons why they DON'T - are illustrated in the LEFT cloud.

## Conclusion

The Public Health Agency of Canada recommends that individuals between the ages of 18-64 years participate in at least 2.5 hours of physical activity a week (2012). In this sample of first year Health Science student, more than two-thirds are participating in less than 3 hours of physical activities a week. The majority of these students recognized the benefits of regular physical activity, unfortunately this was not being translated or incorporated into their lifestyles. The two greatest perceived barriers to regular physical activity among these students were too much schoolwork and not have enough time during exams. For those who did participate in regular physical activity, cardio was the form of exercise most frequently used. Academic commitment appears to be creating generations of students who value academic success over their personal health. It was attempted to indirectly motivate students to increase their exercise levels through the use of a personal health survey. However the second survey outcomes did not appear to demonstrate an increase in physical activity. This research shows a need to find a way to motivate students to incorporate a regular program of physical fitness into their busy schedules as these same students will soon become our next generation of health care professionals.

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Photo credit – Megan Winand

## Reference List

Public Health Agency of Canada. (2012). *Physical Activity Tips for Adults (18-64 years)*. Retrieved March 13, 2014, from <http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/07paap-eng.php>



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