

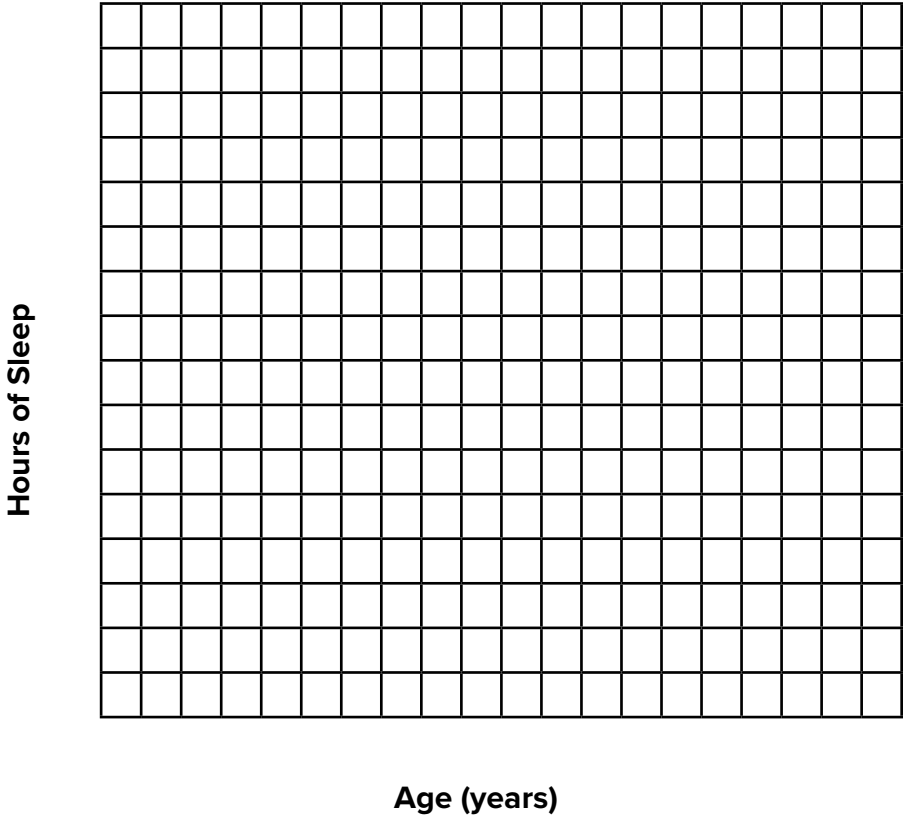
Sleep As A Social Justice Issue

NYS Living Environment Regents Style Questions

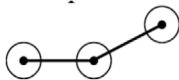
The amount of sleep that humans require changes over the course of their lifetime. The table below shows the average number of hours of sleep that are recommended at different ages.

Age	Hours of Sleep Recommended
0	15
5	13
10	12
15	10
20	9
25	8

Amount of Sleep Recommended for Different Ages



- 1) Mark an appropriate scale, without any breaks in the data, on each labeled axis.
- 2) Plot the data on the grid. Connect the points and surround each point with a small circle. Example:

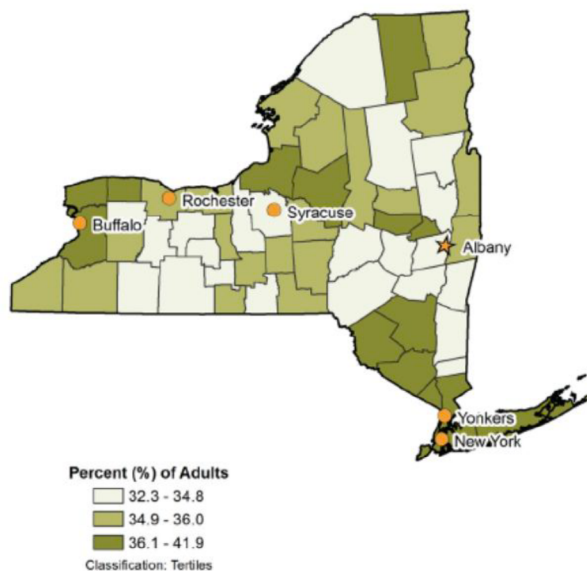


- 3) Which statement is not a valid conclusion based on these data?
 - a) The amount of sleep needed decreases as we age.
 - b) Young children need more sleep than teenagers.
 - c) Adults require more sleep than toddlers.
 - d) Teenagers should sleep about ten hours per night.

Sleep As A Social Justice Issue

The following map shows the percentage of adults who sleep less than seven hours per night on average in New York State.

Almost 4 in 10 Adults are Sleepless in New York



In 2014, 38.1% of New York adults reported sleeping less than 7 hours per night.



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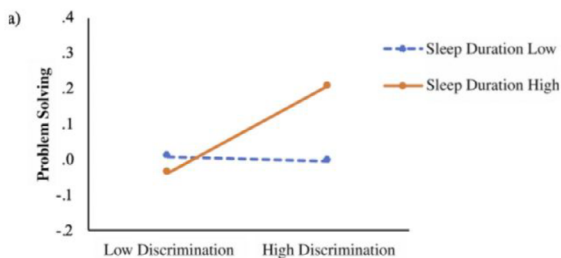
- 4) The data represented on the map best indicates that
- a) Adults in Syracuse sleep less than adults in Buffalo
 - b) Adults in New York City get less sleep than adults in Syracuse.
 - c) Adults get the same amount of sleep in all areas of New York State.
 - d) Albany has a higher population than Syracuse.



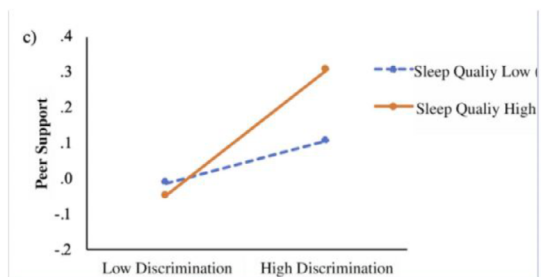
Sleep As A Social Justice Issue

The following graphs show the effects of sleep duration on problem solving and peer support in situations where there is high stress due to discrimination compared to when there is low discrimination.

Sleep Promotes Healthy Coping in Face of Stress



Greater Problem Solving



Greater Peer Support

Source: Wang & Yip, 2019, *Child Development*

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5) Which statement about sleep and coping is best supported by the graphs above?

- a) High sleep duration improves problem solving in both high and low discrimination situations.
- b) High sleep duration improves both problem solving and peer support in high discrimination situations.
- c) Low sleep duration decreases problem solving and peer support in all discrimination situations.
- d) There is no relationship between sleep duration and problem solving in high discrimination situations.



Sleep As A Social Justice Issue

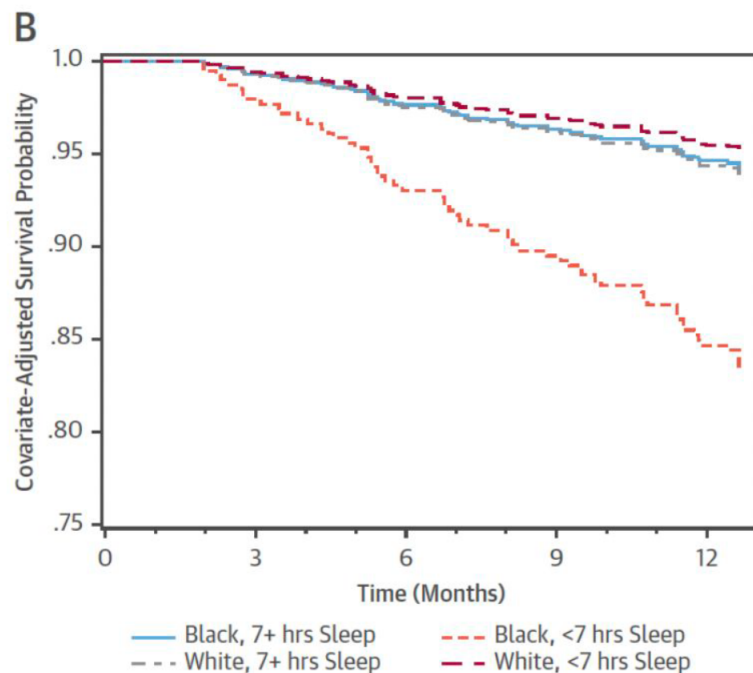
The graph below shows the probability of surviving for the 12 months following an acute coronary syndrome (a type of heart problem) calculated in a study that looked at the effects of race and sleep quality on recovery from coronary syndrome.



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Black patients who slept less than 7 hours had highest risk of MACE (i.e., death, heart attack, unstable angina) compared to all other groups.



Source: McGlinchey, et al., 2018, *Journal of the American College of Cardiology*

6) Which statement is a valid inference based on this data?

- a) Sleep is more important for survival in black patients recovering from Acute Coronary Syndrome.
- b) Sleep is equally important for all patients recovering from Acute Coronary Syndrome.
- c) Sleep is more important for white patients recovering from Acute Coronary Syndrome.
- d) Sleep is not important for patients recovering from Acute Coronary Syndrome.



Sleep As A Social Justice Issue

Experimental Design Diagram

Title: The effect of _____ on _____?
Independent Variable Dependent Variable

Question: Does _____ affect _____?
Independent Variable Dependent Variable

INDEPENDENT VARIABLE: *How will your control and experimental group(s) be treated differently?*

Control Group	Experimental Group(s)

DEPENDENT VARIABLE:
What will you measure?

How will you be able to reliably measure your dependent variable?

PREDICTION/HYPOTHESIS:
What do you predict your data will be and WHY?

Give **EVIDENCE** for your hypothesis. Cite one fact/statistic from the figures and graphs or other trusted source that led you to your hypothesis.

What are some potential confounding variables that you will need to control/keep constant? How will you do this?

Sleep As A Social Justice Issue

Claim, Evidence, Reasoning Assessment

Use the Graphic Organizer to help you support your claim with evidence from the graphs and figures on sleep and Social Justice.

<p>Question: Is Sleep a Social Justice Issue?</p>		
<p>Claim: Write your answer to the question. Provide more than just a yes/no.</p>		
<p>Reasoning: How does this evidence support your claim? What is the science principle that explains why evidence is linked to the claim?</p>	<p>Reasoning: How does this evidence support your claim? What is the science principle that explains why evidence is linked to the claim?</p>	<p>Reasoning: How does this evidence support your claim? What is the science principle that explains why evidence is linked to the claim?</p>
<p>Evidence: What is a specific observation or data from the figures that supports your claim?</p>	<p>Evidence: What is a specific observation or data from the figures that supports your claim?</p>	<p>Evidence: What is a specific observation or data from the figures that supports your claim?</p>

Graphic Organizer adapted from Modelteaching.com
<https://modelteaching.com/wp-content/uploads/2019/04/CER-Student-Graphic-Organizer.pdf>

