

Public & Community Health Doctoral Qualifying Examination

Part 1: IN-SCHOOL

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1. Draft Healthy People 2010 Objective #2.6 is to “Increase to at least 75 percent of the proportion of people age 2 and older who meet the *Dietary Guidelines*’ average daily goal of less than 10 percent of calories from saturated fat.” Suppose you have been hired by a local (suburban Maryland or DC) health department to develop a program to address this objective;
 - a. Choose a target population and provide a rationale for your choice.
 - b. Choose a theory that you think could serve as a foundation for an intervention toward reaching this 2010 objective and provide a rationale for your choice. Be sure to describe how the theory addresses this problem at one or more levels; individual, group, organization, or community, and the strengths of this theory in addressing this problem in your target population.
 - c. Describe limitations of the theory you selected above in addressing the problem in your target population.

2. A number of researchers are interested in finding out whether aerobic exercise reduces anxiety in college students. One hundred volunteers from a college dorm were randomly assigned to a treatment or control group. The treatment intervention consisted of a twelve-week aerobic exercise program, where participants met in the dorm at lunchtime, three times a week for 45 minutes. The intervention duplicated a white-collar work-site intervention reported in the literature. The control group was not invited to participate in the aerobic exercise program. The study groups were compared on a standard measure of anxiety three months after initiation of the study. No other data were collected. The results showed no differences between study groups at three months.
 - a. What are the strengths and weaknesses of this study design?
 - b. What other data would you have needed to interpret the results?
 - c. Describe how qualitative research methods could have been used to enhance the study intervention and interpretation of the results.

3. A researcher at Southern Maryland University utilized a 3-item scale among 80 students to measure attitudes toward drug use among college students. The researcher reported a Cronbach’s alpha of 0.58.
 - a. What is the meaning of Cronbach’s alpha and interpret the above finding.
 - b. What might you do to try to improve the reliability of the scale?
 - c. Describe different methods of determining the validity of the scale.