

Epidemiological Factors Affecting Physical Activity



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Overview



- 5 epidemiological factors
 - Education Level
 - Gender
 - Socioeconomic Status
 - Age
 - Ethnicity

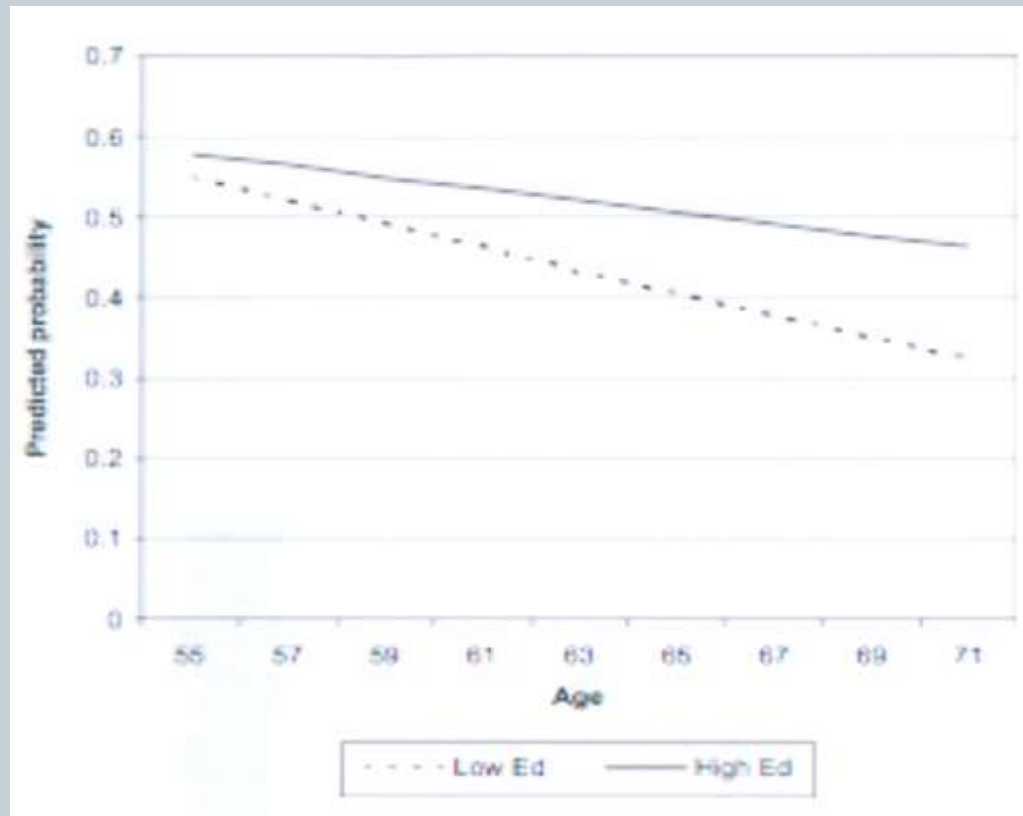


Education Level



- 3 tiers of education
- Dependent upon education level of parents
- Higher education level increases physical activity level for a lifetime

Education Level continued



Shows the rate at which age related decline occurs among highly educated and low educated individuals from early older adulthood to late older adulthood based on the predicted probability for physical activity participation.

(Shaw & Spokane, 2008, p. 778).

Gender

40% of children are not getting regular amounts of physical activity



Female

- Less family/peer support
- Mother-daughter programs
- Household duties
- Sedentary leisure time activity

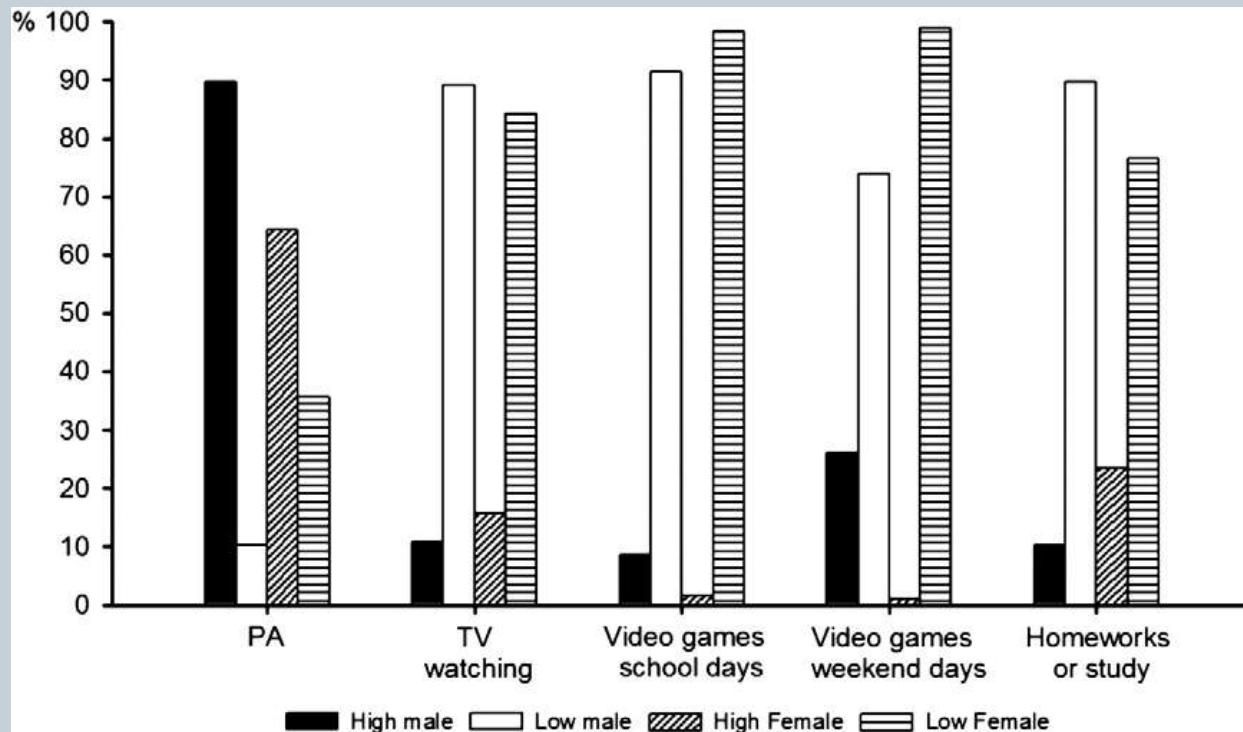


Male

- More family/peer support
- Increased masculinity
- Active leisure time games



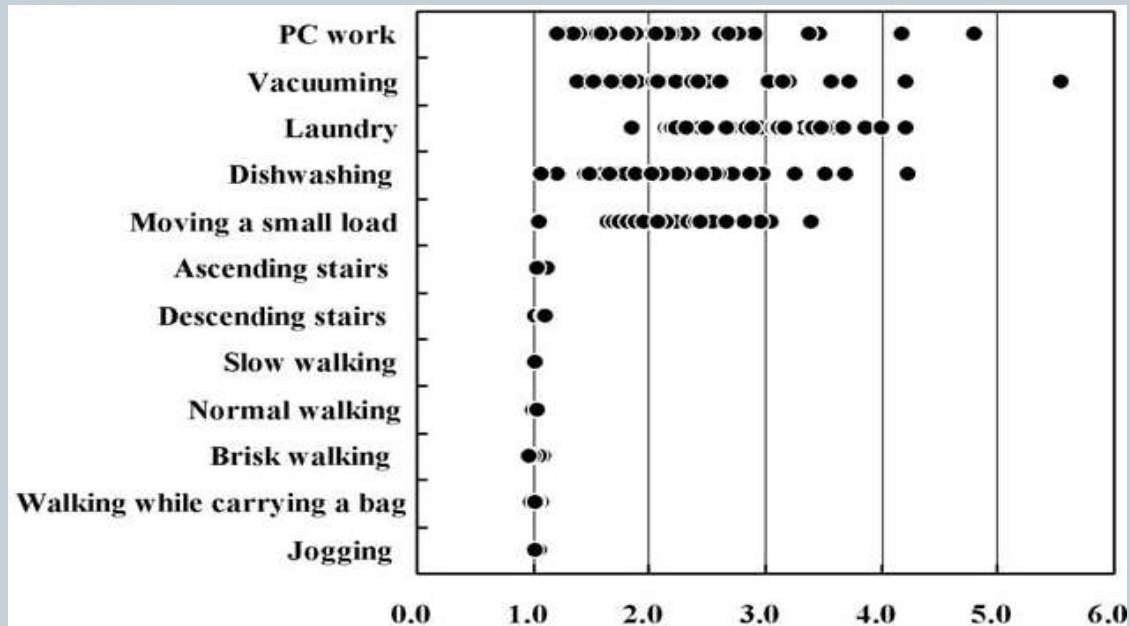
Gender continued



Shows the prevalence of either low or high participation in several extracurricular activities (physical activity, television watching, video games on school days, video days on weekend days, homework or studying) and correlated changes in bone density compared among adolescent males and females.

(Blay, Blay, España-Romero, Martín-Matillas, Moreno, Ortega, Rey-López, Vicente-Rodríguez, 2009, p. 928).

Gender continued



Shows the average total acceleration with several household duties among women doing daily household duties and other physical activity by using a triaxial accelerometer to gather data.

Socioeconomic Status

High Socioeconomic Status

- Vigorous intensity at a gym
- Appearance focused not power focused
- Access to information



Low Socioeconomic Status

- Difficult activities of daily living
- Power focused not appearance focused
- Limited information access



Age

60 % of adults are not getting recommended amounts of physical activity



- Decline in physical activity starting during adolescence
- Expectations for health improvements change
- Lack of time
- Fatigue



Ethnicity



- Lack of bilingual resources
- Personal security concerns
- Too much information



Conclusion



- 5 epidemiological factors that affect physical activity levels
- Important to consider each factor for successful interventions



References



- American College of Sports Medicine and American Heart Association. (2007). *Physical activity and public health guidelines*. Indianapolis, IN: Author.
- Anguiano, R., Gross, K., McArthur, L. (2004). Are household factors putting immigrant Hispanic children at risk of becoming overweight: A community-based study in eastern North Carolina. *Journal of Community Health*, 29. 387-404. Retrieved April 5, 2010, from Academic Search Premiere database.
- Bercovitz, K., Loucaides, C., Plotnikoff, R. (2007). Differences in the correlates of physical activity between urban and rural Canadian youth. *Journal of School Health*, 77, 164-170. Retrieved April 2, 2010, from Academic Search Premier database.
- Blay, G., Blay, V., España-Romero, V., Martín-Matillas, M., Moreno, L., Ortega, F., et al. (2009). Extracurricular physical activity participation modifies the association between high TV watching and low bone mass. *Bone*, 45. 925-930. Retrieved April 14, 2010, from Academic Search Premiere database.
- Hikiyara, Y., Ishikawa, K., Kawaguchi, K., Ohkawara, K., Oshima, Y., Tabata, I., Tanaka, S. (2010). Classifying household and locomotive activities using a triaxial accelerometer. *Gait and Posture*, 31. 370-374. Retrieved April 15, 2010 from Academic Search Premiere database.
- Lox, C., Martin Ginis, K., Petruzzello, S. (2006). *The Psychology of Exercise*. Scottsdale, AZ: Holcomb Hathaway Publishers.
- Netz, Y., Raviv, S. (2004). Age differences in motivational orientation toward physical activity: An application of Social-Cognitive Theory. *The Journal of Psychology*, 138. 35-48. Retrieved April 2, 2010, from Academic Search Premier database.
- Shaw, B., Spokane, L. (2008). Examining the association between education level and physical activity changes during early old age. *Journal of Aging and Health*, 20. 767-787. Retrieved April 2, 2010, from Academic Search Premier database.

Thank You



Questions?