



Female College Student Awareness of Exposures to Environmental Toxins in Personal Care Products and Its Effect on Preconception Health

Lisa Chan RNC-OB, MSN (c)

BACKGROUND

Exposures to environmental toxins in personal care products raise health concerns for women of childbearing age because many products contain numerous chemical ingredients that have been known to affect reproduction, fertility, preconception health, asthma, and some have been associated with hormone disruption, birth defects, cancers, neurological, and developmental problems.



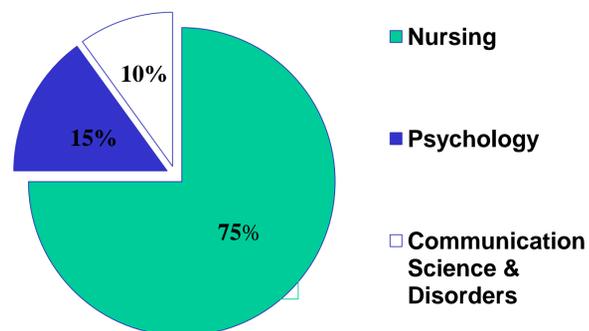
HYPOTHESIS

Most consumers are likely unaware of the bio-accumulative effects and health risks that exposure from daily use of these products pose.

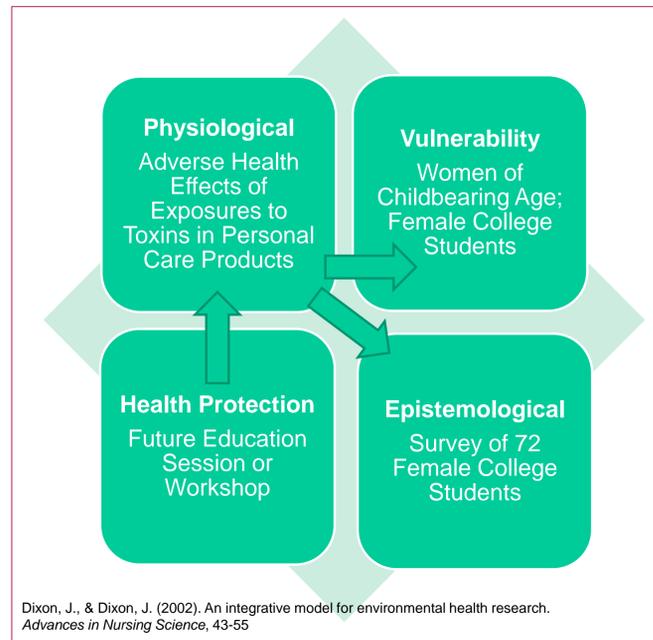
PURPOSE

To describe what female students know about environmental toxins in personal care products, and the effects these products may have on preconception health

DEMOGRAPHICS



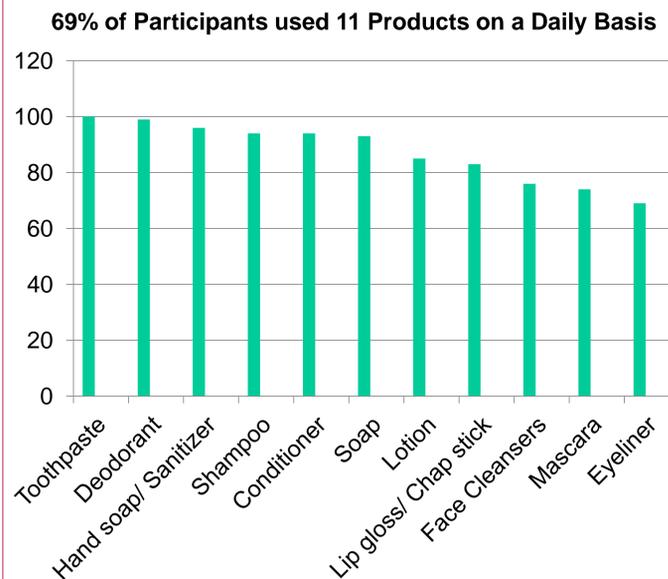
DIXON'S INTEGRATIVE ENVIRONMENTAL HEALTH MODEL



Dixon, J., & Dixon, J. (2002). An integrative model for environmental health research. *Advances in Nursing Science*, 43-55

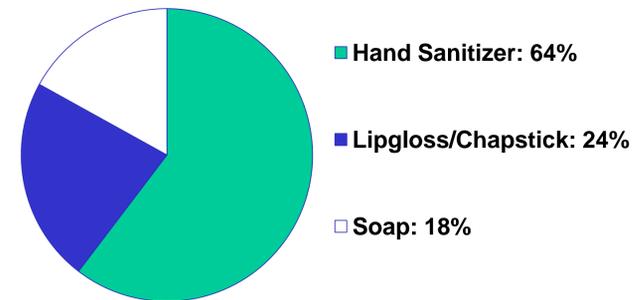
METHOD: SURVEY

72 Female Students from a New England university were asked how many personal care and cosmetic products they used in the last 24 hours.



RESULTS

Top 3 personal care products used by respondents more than 5 times in 24 hours



RESULTS

• Almost half (49%) of participants were unsure if using cosmetics and personal care products were safe, and 30% were unsure if these products affected their health.

• Most (88%) believed that people should worry about toxic things because our bodies cannot overcome toxins.

• More than half, 58%, were unsure about the link between illness and exposures to toxins.

• Students reported they received information from a variety of sources including from Media: 85%; Class: 67%; Friends: 59%; Family: 58%; and Medical Visits: 25%.

• Only 18% of participants sought out nurses for information about environmental issues.

• 67% of participants surveyed would like to learn more about toxic exposures from personal care products.

STUDENT CONCERNS

“How will products I use everyday directly affect me in my lifetime?”
“I would like to learn more but I am scared to find out the truth about personal care products”
“If products are not safe, why are they sold in the stores?”

CONCLUSIONS

• Although students seemed aware of some adverse health effects related to global toxins such as air pollution and water contamination, they seemed less aware of the relative exposures to environmental toxins within their own personal environments.

• Data showed that students didn't use nurses or doctors as their primary sources of information. It is important to improve awareness and knowledge for health professionals as well as for the target population on this topic, because health professionals play an important role in translating the science to their patient populations.



NURSING IMPLICATIONS

•Nurses have contact and access to a broad portion of the population.

• Nurses have the ability to translate and incorporate information into practice, and the ability to make information easier for patients to understand on a personal level.

•Further education is needed on Environmental Health Topics for Undergraduate, Graduate, and Advanced Practice levels

•Future Research Includes: Conducting Focus Groups & Designing a tailored intervention and educational program

REFERENCES

1. CDC (Centers for Disease Control and Prevention). (2011, June). National report on human exposure to environmental chemicals. Retrieved Jan. 30, 2011, from www.cdc.gov
2. Chalupka, S., & Chalupka, A. (2010). The impact of environmental and occupational exposures on reproductive health. *JOGNN*, 84-102.
3. Dixon, J., & Dixon, J. (2002). An integrative model for environmental health research. *Advances in Nursing Science*, 43-55
4. Dodson, R., Nishioka, M., Standley, L., Perovich, L., Brody, J., & Rudel, R. (2012). Endocrine disruptors and asthma-associated chemicals in consumer products. *Elphonline.org*, 1-41.
5. EWG (Environmental Working Group). (2009). Not just a cosmetic problem. Retrieved Feb. 4, 2012, from www.ewg.org
6. EWG (Environmental Working Group). (2012). Myths on cosmetic safety. Retrieved Jan. 28, 2012, from www.ewg.org
7. Frey, K., & Files, J. (2006). Preconception healthcare: What women know and believe. *Maternal Child Health Journal*, 10:573-577.
8. Sutton, P., Woodruff, T., Peronn, J., Stotland, N., Conry, J., Miller, M et al. (2012). Toxic environmental chemicals: The role of health professionals in preventing harmful exposures. *American Journal of Obstetrics & Gynecology*, 1-10
9. Woodruff, T., Zota, A., & Schwartz, J. (2011). Environmental chemicals in pregnant women in the United States NHANES 2003-2004. *Environmental Health Perspectives*, 119 (6), 878-885.
10. Wu, X., Bennett, D., Ritz, B., Cassady, D., Lee, K., & Hertz-Picciotto, I. (2010). Usage pattern of personal care products in California households. *Food and Chemical Toxicology*, 3109-3109.

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