Individual Differences and Perceptions of Personal Care Products

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Abstract

Environmental exposure to potentially toxic compounds is common. Unknown to the general population, many of these harmful chemicals are contained within personal care products like toothpaste, shampoo, and lotion. There is no prior research pertaining to the perceptions of risk linked to personal care product use. As such, the overall purpose of this study was to examine the influences of individual differences (i.e., gender, free will, The Big Five, scientific literacy, and warmth and competence) on these perceptions. Because individual differences have already been used to predict risk perception in other products, such as cigarettes and alcohol, we examined perceptions of usage of these products in order to identify potential similarities. Finally, our study was also concerned with how and why perceptions change when participants are given the opportunity to choose from a series of different products of various risk levels. Participants were randomly assigned to low, medium, or high-risk conditions. They received false reports within their survey, which detailed information about potential personal care product toxicity. Risk perceptions associated with those products were then measured. Preliminary results indicate that participants who received the high risk report, such as cancer or an overall hazard warning, were likely to change their products. However, those assigned to the low risk group were less likely to change products $\chi 2$ (2, N = 68) = 6.74, p = .034. These preliminary results support the need for including warning labels on personal care products to inform individuals about potential hazard.

Introduction

Environmental exposure to potentially toxic compounds is common. Unknown to the general population, many of these harmful chemicals are contained within personal care products like toothpaste, shampoo, and lotion.

Prior research regarding perceived risk of consumer products is limited to warning labels for cigarettes, over-the-counter drugs, and FDA black box warnings. Studies on smoking behavior show that people are more motivated to quit smoking, when warning labels on cigarette boxes display the harmful health effects (Hammond, 2011). However, if warning labels only list the toxic ingredients without providing an explanation of said effects, the responsiveness to quit smoking decreases (Hammond 2006).

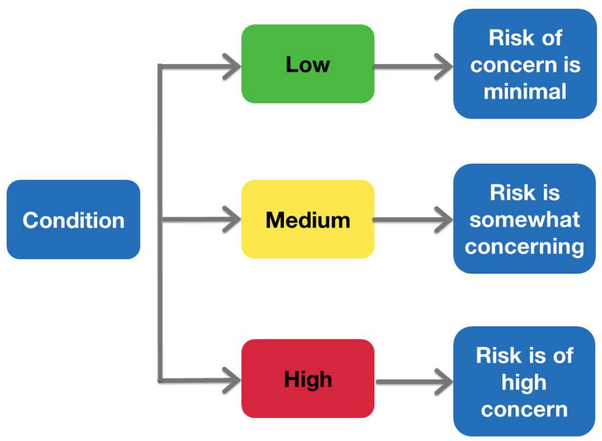


Figure 1. Levels of Conditions Low, Medium and High

Based on the cigarette warning literature, we suggest that the general lack of awareness about the health risks associated with harmful additives in care products may result in poor product choice.

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Methods

Participants: 68 students were recruited from Lynn University with IRB approval.
Design: After recruiting participants, they attended survey sessions in the Library where they completed an online survey and this survey was administrated in the following order;

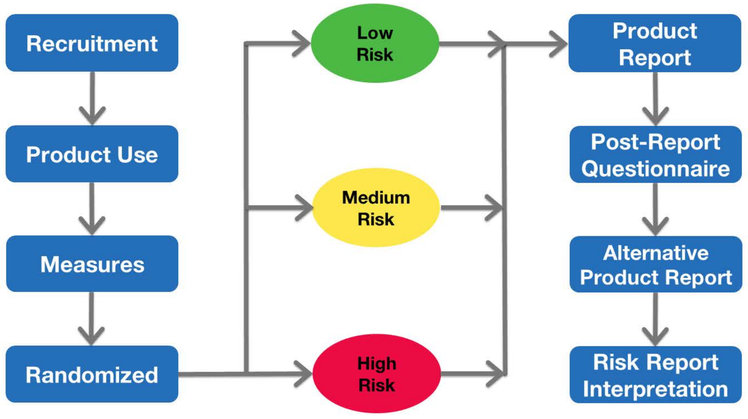


Figure 2. Survey Sessions Process

Results



Figure 3. Product Risk Report for the Medium Risk group

Hypothesis test summary using Independent-Samples Kruskal-Wallis Test for Product Report, Product Use, and Product Health Perception

	Null Hypothesis	Sig.
Report	Level of concern	.000*
	Level of agreement	.107
Product use	Likelihood of repeat product use	.010*
	Likelihood of repeat product purchase	.013*
Health perception	Perception of product health	.000*
	Product health in the short term	.000*
	Product health in the long term	.000*

Figure 4. Hypothesis Test Summary.
*, statistically significant

Results

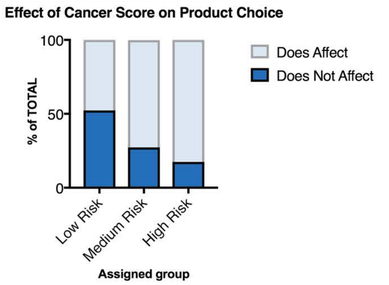


Figure 5.1. Comparison of participants responses concerning the effect of cancer on product choice (mean difference is significant by Tukey HSD between low and high risk groups, p=.000).

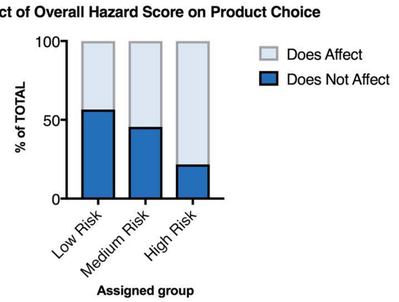


Figure 5.2. Comparison of participants responses concerning the effect of overall hazard on product choice (mean difference is significant by Tukey HSD between low and high risk groups, p=.000).

Pair-wise post-hoc comparisons showed significant differences between the low and high risk groups for all measures (Product Report, Product Use and Product Health Perception) except accuracy of the report (data not shown).

Discussion

The results of this experiment supported our hypothesis. The findings were statistically significant when comparing the low and high risk groups and their level of concern with their product. Participants in the high risk condition were more likely to perceive their products are being unhealthy and as such as are willing to change their products.

This demonstrates that when consumers are educated about the possible health risks of their product, they are more aware of the consequences of purchasing future products. However, individuals will need to access their safety reports when making decision about their products. It is unclear whether consumers would be motivated to do this.

However, there are limitations to this study such as the sample size was small. This is an ongoing study, full analysis will be completed after recruiting the desired number of participants.

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