

RESEARCH ARTICLE

# Factors Influencing Intention to Undertake Nasopharyngeal Cancer Risk Reducing Behaviors

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**Abstract:** To reduce deaths due to nose and throat cancer, also known as nasopharyngeal cancer (NPC), it is important to understand factors that motivate the public to undertake cancer screening. This study employed the risk perception attitude (RPA) framework to predict factors influencing NPC risk-reducing behaviors among a group of Malaysians. A sample of Malaysians (n=215) completed a questionnaire about perceived susceptibility, perceived severity, self-efficacy, response efficacy, and intention to enact self-protective actions to reduce NPC risk. A majority of the participants had responsive (high risk, high efficacy) and proactive attitudes (low risk, high efficacy). Hierarchical regression of mediation effect under structural equation model (SEM) approach was used to test the theory. Response efficacy and self-efficacy were negatively associated with perceived risk ( $p<0.01$ ). Intention was negatively associated with perceived risk and positively associated with response efficacy and self-efficacy ( $p<0.01$ ). Heightened perceived risk weakens efficacy beliefs and intention to enact self-protective behavior, suggesting that low-risk messages may work better to avert fatalistic thinking for this group. Perceived risk and response efficacy explained 26.5% of the variance in self-efficacy, suggesting the importance of framing NPC risk messages to heighten the audience's confidence to enact self-protective health behaviors.

**Keywords:** Nasopharyngeal cancer, Risk Perception Attitude framework, risk-reducing behaviors, Malaysians

Nose and throat cancer, also known as nasopharyngeal cancer (NPC), when diagnosed before Stage 3, has good prognostic outcomes. Considering that NPC is sensitive to chemo-radiotherapy and results in a two- and three-year survival rate of 84% and 78%, respectively, in cases of early detection (Fles et al., 2016), regular screening is important to reduce mortality. Worldwide, deaths due to NPC number 50,000 out of 86,000 cases (Parkin et al., 2005), and 71% of new NPC cases are from East and Southeast

Asia (Chang & Adami, 2006). In Malaysia, NPC is the fifth most common cancer, and the lifetime risk for males was 1 in 143, and it was 1 in 417 for females in the 2007–2011 period (Ministry of Health, Malaysia, 2015). Most of the NPC cases were detected at Stages 3 and 4 (63% for males, 60% for females) (Ministry of Health, Malaysia, 2017), suggesting a lack of awareness towards NPC symptoms.

Minimizing risk factors can reduce NPC deaths. It is widely reported among NPC researchers that