Analysing the perception of air pollution in Hong Kong secondary school students: A multi-centre, exploratory, cross-sectional study

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There is an established evidence base revealing the negative short-term and long-term effects of air pollution, which is a significant public health problem in Hong Kong. However, little is known about the sensory perceptions, risk perception and symptoms of air pollution, as experienced by school students in this area. Our study compares these subjective experiences between different groups of children. This cross-sectional exploratory study uses a pre-validated air quality perception scale (AQP) to obtain quantitative results. 379 students from years 7 to 11 were included. The three schools were in separate locations with varying air pollution. The data was analysed using SPSS 22.0 to perform descriptive statistics and univariate analysis to compare AQP scores and subscores between the different form groups, schools and genders. Logistic regression was also carried out to identify which variables had most effect on health perceptions. The most reported symptoms, sensory perceptions and risk perceptions were noticing the sky was cloudy (96% of students), worrying about health (87%), noticing sneezing (81%) and smelling unpleasant odours (79%). The students attending school in the most polluted area experienced more subjective negative effects and the school in the least polluted area experienced the lowest (X^2=11.896, p=0.003). Females also reported higher anxiety alone than males (p=0.018). Students in Hong Kong seem able to perceive the adverse effects of air pollution, with increased perception scores in areas of higher pollution. These findings, in combination with findings from similar studies, could be used to provide foundation for future research and interventions.

Keywords: Air pollution, Perception, Children, AQP, Hong Kong

Biography



Since joining Birmingham Medical School in 2013, Bonita was involved in running multiple committees, quality improvement projects and research and has continued this after graduating. She intercalated in international health which led to this research on air pollution. Now a junior doctor, Bonita is in the process of applying for internal medical training with the hopes of working in infectious diseases.

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