

MAPPING OF PREVIOUS RESEARCH (LITERATURE REVIEW)

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1

Haines, M. M., Stansfeld, A. A., Job, R. F., Berglund, B., & Head, J. (2001). A Follow-Up Study of Effects of Chronic Aircraft Noise Exposure on Child Stress Responses and Cognition. *International Journal of Epidemiology*, 30, 839-845.

Literature		Research Background			Research Design and Methodology			Discussion
Author	Year	Problems	Purpose	Scope and Limitation	Method	Sample/Researched Variable	Findings	
Haines, M. M., Stansfeld, A. A., Job, R. F., Berglund, B., & Head, J	2001	Children are a high-risk group vulnerable to the effects of chronic aircraft noise exposure.	This study examines the effect of aircraft noise exposure on children's health and cognition around London Heathrow Airport and tests sustained attention as an underlying mechanism of effects of noise on reading and examines the way children adapt to continued exposure to aircraft noise.	repeated measures epidemiological field study, the cognitive performance and health where the children first examined at baseline were examined again after a period of one year at follow-up	In this repeated measures epidemiological field study, the cognitive performance and health of 275 children aged 8–11 years attending four schools in high aircraft noise areas (16-h outdoor Leq .66 dBA) was compared with children attending four matched control schools exposed to lower levels of aircraft noise (16-h outdoor Leq .57 dBA). The children first examined at baseline were examined again after a period of one year at follow-up. Health questionnaires and cognitive tests were group administered to the children in the schools.	1. 275 children aged 8–11 years attending four schools in high aircraft noise areas (16-h outdoor Leq 66 dBA) 2. children attending four matched control schools exposed to lower levels of aircraft noise (16-h outdoor Leq .57 dBA)	At follow-up chronic aircraft noise exposure was associated with higher levels of Conclusions annoyance and perceived stress, poorer reading comprehension and sustained attention, measured by standardized scales after adjustment for age, social deprivation and main language spoken. These results do not support the sustained attention hypothesis previously used to account for the effects of noise on cognition in children. The reading and annoyance effects do not habituate over a one-year period and do not provide strong evidence of adaptation.	The within-subjects analyses indicate that children's development in reading comprehension may be adversely affected by chronic aircraft noise exposure. Noise annoyance remains constant over a year with no strong evidence of habituation. Further research should look at the long-term implications of these effects and examine further underlying mechanisms.