

Swimming pools: neither friend nor foe for Aboriginal children with severe ear disease

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Research by the Menzies School of Health Research (Menzies) has found that swimming pools are unlikely to significantly reduce or increase levels of severe middle ear disease in remote Aboriginal communities.

A study by Menzies PhD candidate Anna Stephen, published in the latest Medical Journal of Australia, found that swimming in chlorinated pools does little to either improve or worsen the rates of chronic suppurative otitis media (CSOM) - perforation of the eardrum with discharge from the middle ear.

Ms Stephen said that in the Northern Territory, approximately 50-80 per cent of Indigenous children with CSOM suffer from moderate to severe hearing loss.

“In this population otitis media can develop in the first weeks of life and commonly progresses to a chronic disease, which can be associated with educational disadvantage and delays in the development of speech and language and social disadvantage in adulthood,” she said.

Ms Stephen said that several studies have suggested that swimming may have a cleansing effect on skin and ear disease among Indigenous children.

“This study sought to evaluate the impact of daily swimming on rates of ear discharge among Aboriginal children to support a best practice treatment model for remote communities.”

The study involved a controlled trial in which 89 Aboriginal children with eardrum perforations from Nguui and Wadeye were randomly assigned to two groups.

The intervention group of 41 children swam for 45 minutes, five days a week for four weeks, without a cap or earplugs. The control group of 48 children were restricted from swimming for four weeks.

Each child’s ears were examined in the week before and the week after the intervention.

At the start of the study, 26 swimmers and 32 non-swimmers had ear discharge; at the follow-up examination, 24 swimmers had ear discharge compared with 32 non-swimmers.

“At the completion of the four weeks no significant changes in the microbiology of the nasopharynx (uppermost part of the pharynx) and middle ear in swimmers or non swimmers was observed,” Ms Stephen said.

“While swimming lessons for Aboriginal children in remote communities should be supported, we’ve found it unlikely that it will substantially reduce rates of chronic middle ear infection.”

Ms Stephen said more focus needs to be placed on capacity building initiatives and the development of culturally appropriate resources to better equip Aboriginal health workers to deliver these critical health messages.

“Coupled with this is the need for further early intervention strategies to prevent that initial perforation of the ear in infancy which can have lasting detrimental affects throughout adulthood.”

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Catholic School (Nguui), staff at Our Lady of the Sacred Heart Thamarrurr Catholic (Wadeye), pool staff at Wadeye and Nguui, and Swimming NT.

The study in full can be viewed at: https://www.mja.com.au/journal/2013/199/1/impact-swimming-chronic-suppurative-otitis-media-aboriginal-children-randomised?0=ip_login_no_cache%3De0840b1a7eb2f795ebe8b8b2d79560e8

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Background: Menzies School of Health Research (Menzies) are Australia's only Medical Research Institute dedicated to improving Indigenous health and wellbeing. We have a 27-year history of scientific discovery and public health achievement. Menzies work at the frontline and collaborate broadly, partnering with over 60 Indigenous communities across Northern Australia to create resources, grow local skills, and find enduring solutions to problems that matter.