Medical Xpress

Swimming pools don't help Indigenous children's hearing, contradiction of previous study

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Swimming carnival day at Mimili Community Pool.

(Medical Xpress)—Swimming pools are not the answer to solving the horrific prevalence of middle ear disease afflicting Indigenous children in remote communities, a ground-breaking report from Flinders University reveals.

The Federally-funded study, conducted in South Australia's Anangu Pitjantjatjara Yankunytjatjara (APY) Lands and Yalata from 2009-2011, found chlorinated saltwater pools have no direct benefit on the ear health and hearing of school-aged Indigenous children.

The findings contradict an influential and widely-publicised 2003 Australian study which showed swimming pools in two Indigenous communities in remote Western Australia significantly reduced some ear disease in children.

Flinders University Associate Professor in Audiology Linnett Sanchez, the study's chief investigator, said while swimming pools were "an incredibly important social and recreational asset", they had no effect in reducing middle ear disease – a serious, long-term condition that affects alarmingly high numbers of remote Indigenous children.

"Otitis media (middle ear disease) is a disease of poverty in Indigenous children," Associate Professor Sanchez said.

"It's a serious and complex problem that in remote Indigenous children typically persists throughout childhood and is very difficult to treat so it's not surprising that a single intervention such as a swimming pool wouldn't make a difference," she said.

The Flinders study assessed the ear health of 813 different children aged between 5 and 17 years, with a total of 2100 audiological and medical assessments conducted across 11 remote Indigenous communities, both with and without pools, twice a year during the three-year research.

The "whole of population" study included every child who was at school on the day the researchers visited, and was undertaken both at the end of the swimming season and at the end of winter to gauge any seasonal variations.

The study did not measure other indices of health, such as skin infections, that might be improved by access to swimming pools.

"We found ear health was actually worse at the end of summer – there's no straightforward explanation for that but it has nothing to do with pools," Associate Professor Sanchez said.

"So when they conducted the WA study and saw an improvement after winter, the change was attributed to a swimming pool effect."

Aside from ascertaining any effects on ear health and hearing, Associate Professor Sanchez said the Flinders study was able to determine the influence of swimming pools on school attendance.

"The communities initiated a 'no school, no pool' policy when the pools were first put in but we found no difference in school attendance rates in pool and non-pool communities, which average 74 per cent.

"School attendance issues, just like ear health, have many contributing social, cultural and health factors so again there's no single solution."

Associate Professor Sanchez said Indigenous ear health required urgent action on many fronts in Anangu communities, and more generally in remote Australia.

"Among five-year old Anangu children starting school with English as a second language, 13 per cent have hearing levels in both ears which meet standard audiological criteria for a hearing aid fitting, while 36 per cent of all school age children have a perforation in one or both eardrums.

"The awful persistence of eardrum perforations is seen right through the oldest secondary students which means many adolescents are trying to find jobs as young adults with the significant social and health effects of

hearing loss, as well as generally reduced educational attainment, contributed to by years of poor hearing."

Provided by Flinders University

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