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| **S.No** | **Title** | **Author** | **Year** | **Inference** |
| **1.** | The Effect of Lifeguard Experience upon the Detection of Drowning Victims in a Realistic Dynamic Visual Search Task | 1.Victoria  2.Laxton | 2017 | 1. Lifeguard surveillance is a complex task that is crucial for swimmer safety, though few studies of applied visual search have investigated this domain. 2. This current study compared lifeguard and non-lifeguard search skills using dynamic, naturalistic stimuli (video clips of confederate swimmers) that varied in set size and type of drowning. 3. Lifeguards were more accurate and responded faster to drowning targets. 4. Differences between drowning targets were also found: Passive drowning were responded to less often, but more quickly than active drowning , highlighting that passive drowning may be less salient but are highly informative once detected. 5. Set size effects revealed a dip in reaction speeds at an intermediate set-size level, suggesting a possible change in visual search strategies as the array increases in size. |
| **2.** | **Visual search for drowning swimmers: Investigating the impact of lifeguarding experience** | 1.Victoria Laxton  2.David Crundall  3.Duncan Guest  4.Christina J. Howard | 2020 | 1. The current research adds to this literature by examining lifeguard drowning-detection across two studies using naturalistic, dynamic search tasks. 2. Although lifeguards are taught to recognize characteristics of drowning and distress, these behaviors are not always indications that a swimmer is in trouble. 3. Despite shortcomings in all the above studies, they consistently demonstrated superiority in some aspects of lifeguards' performance. 4. The current studies aim to build upon these findings, replicating the superiority effect and increasing there understanding of it, using a more exacting design. 5. The first experiment explores differences in eye-movements and behavioral responses between non-lifeguards and lifeguards using a modified version of the drowning detection task used by Lax ton and Crandall. |
| **3.** | **Gaze behavior of experienced and novice beach lifeguards – An exploratory in situ study** | 1.Pieter Vansteenkiste  2.Matthieu Lenoir  3.Jan G. Bourgois | 2020 | 1. For lifeguards, recognizing a swimmer in trouble is a key factor in the rescue process. 2. Although reports show that lifeguards outperform non-lifeguards in their surveillance task, it is unclear to what extent this difference is reflected in gaze behavior. 3. In the current study, gaze behavior of nine novice and seven experienced beach lifeguards was recorded for 45 min while they were on active duty. 4. Results showed that fixation duration of experienced lifeguards was longer and more variable than that of novice lifeguards, and that these differences were more pronounced when looking at the task-relevant region (i.e., swimming zone). 5. Compared to experienced lifeguards, novices were found to be more distracted by the task-irrelevant regions when there were more people swimming. |
| **4.** | **An exploration into the contributing cognitive skills of lifeguard visual search** | 1.Victoria Laxton  2.Andrew K. Mackenzie  3.David Crundall | 2022 | 1. Lifeguard drowning detection in swimming pools and beach settings is influenced by experience. 2. The current experiment explores the cognitive skills that might underlie this experience effect. 3. Lifeguard and non-lifeguard performance in a domain-free multiple object avoidance (MOA) task and a partially domain-free functional field of view (FFOV) task was compared to performance on an occlusion-based drowning detection task. 4. Lifeguards performed better than non-lifeguards on the MOA task and the FFOV central task (identifying whether an isolated swimmer was drowning). 5. However, only performance in the central FFOV task was associated with performance in the occlusion-based drowning detection task, and this was the only part of the two tasks that was not domain-free. |
| **5.** | Drowning in Disinfection Byproducts? Assessing Swimming Pool Water | 1.[Christian Zwiener](https://pubs.acs.org/action/doSearch?field1=Contrib&text1=Christian++Zwiener)  2.[Susan D. Richardson](https://pubs.acs.org/action/doSearch?field1=Contrib&text1=Susan+D.++Richardson)  3.[David M. De Marini](https://pubs.acs.org/action/doSearch?field1=Contrib&text1=David+M.++De+Marini)  4.[Tamara Grummt](https://pubs.acs.org/action/doSearch?field1=Contrib&text1=Tamara++Grummt)  5.[Thomas Glauner](https://pubs.acs.org/action/doSearch?field1=Contrib&text1=Thomas++Glauner)  6.[Fritz H. Frimmel](https://pubs.acs.org/action/doSearch?field1=Contrib&text1=Fritz+H.++Frimmel) | 2006 | Disinfection is mandatory for swimming pools:   1. Public pools are usually disinfected by gaseous chlorine or sodium hypochlorite and cartridge filters; home pools typically use stabilized chlorine. 2. These methods produce a variety of disinfection byproducts (DBPs), such as trihalomethanes (THMs). 3. which are regulated carcinogenic DBPs in drinking water that have been detected in the blood and breathe of swimmers and of no swimmers at indoor pools. 4. Also produced are halogenated acetic acids (HAAs) and haloketones, which irritate the eyes, skin, and mucous membranes; trichloramine. 5. Precursors of DBPs include human body substances, chemicals used in cosmetics and sun screens, and natural organic matter. |
| **6.** | **Great Expectations: Perceptual Challenges of Visual Surveillance in Lifeguarding** | 1.Lyndsey K. Lanagan-Leitzel | 2015 | 1. The presence of lifeguards on beaches and at pools has the potential to prevent many drowning incidents. 2. This article examines the visual components of the lifeguard's job, discussing some of the major challenges they face during surveillance. 3. These include optical challenges scene challenges. 4. stimulus challengesand attentional challenges, including but not limited to vigilance issues. 5. The differences between basic laboratory research and the lifeguarding task are explored, with recommendations for future study. |