

## I spy, I spy with my little eye

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### **I spy, I spy with my little eye**

A research about the effect of watching eyes on pre-swim shower behaviour

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### **Aims**

The basis of this study lies in hygiene of swimming pools, where it is argued that taking a pre-swim shower would lead to a decrease in release of pollutants in the swimming pool, which in the end would lead to the decrease of health issues as red eyes and asthma. However, previous research has shown that not even half of the swimming pool visitors takes a pre-swim shower. Therefore, interventions are needed to increase pre-swim shower behaviour. Whereas previous research focused on ‘conscious’ behavioural interventions, this research focuses on ‘unconscious’ behavioural interventions, by using watching eyes. Watching eyes create an unconscious feeling of being watched, which lead people to behave in a prosocial way (for example: people litter less). It is argued that when swimming pool visitors are ‘confronted’ with watching eyes, they are more likely to take a pre-swim shower. So, this study aimed to increase pre-swim shower behaviour in swimming pools by using watching eyes.

### **Methods**

Three interventions were designed, either containing watching eyes, a symbol, or a combination of both (see figure 1). This led to three conditions: eyes-only (no symbol), eyes + symbol, and symbol-only(no eyes). A fourth condition was added in which nothing was displayed (no eyes/no symbol): the control condition. Three methods were used to gather data for this study: observations, questionnaires and water quality measurements. Observations were used to monitor actual pre-swim shower behaviour, and the influence of factors as gender, age, carrying belongings, other people showering, et cetera. These factors were found to influence pre-swim shower behaviour in previous research. Questionnaires were used to monitor hygiene perceptions, importance of hygiene, and hygienic behaviour, and about the awareness and understanding of the interventions. It was expected that data about the factors mentioned before could give more insights about how swimming pool visitors feel about hygiene in swimming pools, and about the influence of the interventions. Finally, water quality measurements were used to monitor the release of pollutants in the swimming pool.

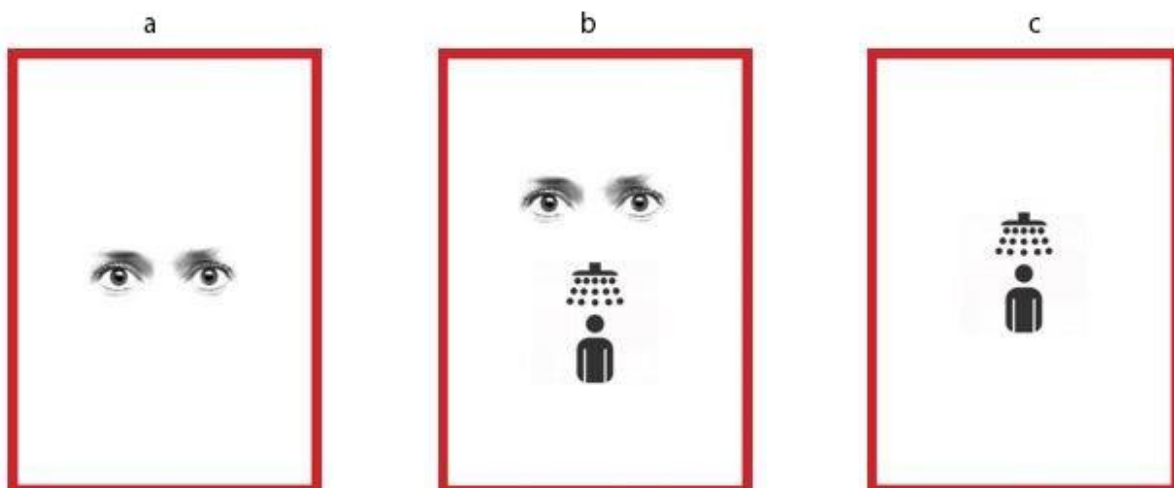


Figure 1 – Interventions: Eyes-only (a), Eyes + symbol (b), and Symbol-only (c)

### **Results**

The results provide evidence for the effect of watching eyes on pre-swim shower behaviour. It was observed that actual pre-swim shower behaviour increases during all three interventions, with the ‘symbol-only’ intervention being the most effective intervention. Furthermore, it was shown that

perceptions of hygiene and hygienic behaviour were rated highest in the ‘watching eyes + symbol intervention’. Finally, less pollutants were released during all three interventions, with the watching eyes + symbol intervention being the most effective intervention. The general results are shown in Table 1.

Table 1 – General results of all 3 methods and all 3 interventions and the control.

Method	Control	Eyes-only	Eyes + symbol	Symbol-only
Observations	35.3 %	45.3 %	45.3 %	49.4 %
Questionnaires	78.6 %	74.2 %	73.3 %	80.0 %
TN release from measurements (mg N /L per bather)	1.27	0.56	0.30	0.40

### Conclusions

These results indicate that the watching eyes + symbol intervention is the best intervention to increase pre-swim shower behaviour. It is therefore recommended to use this intervention in swimming pools. This research has shown the effectiveness of watching eyes in a new context: in a swimming pool context. Furthermore, this research contributes to the body of literature about the influence of watching eyes on hygienic behaviour. Future research should specifically focus on fine tuning of watching eyes interventions to increase pre-swim shower behaviour, and in general on the underlying process between watching eyes and prosocial behaviour.

### Keywords

Watching eyes – pre-swim shower behaviour – swimming pool – interventions – hygiene