

I spy, I spy with my little eye

The effect of watching eyes on pre-swim shower behaviour (PPT)

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I SPY, I SPY WITH MY LITTLE EYE

The effect of watching eyes
on pre-swim shower behaviour



**TU Delft**

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Previous behavioural studies

- Amsterdam conference
 - Influence of minimal interventions
 - Information based intervention was best
 - Carrying stuff was a barrier for showering
- Zell am See conference
 - Improved research location
 - Normative intervention was best
 - Carrying stuff was still a barrier

3rd behavioural study

The watching eyes phenomenon

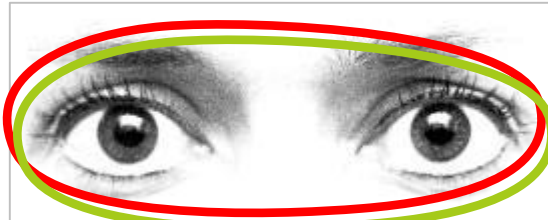
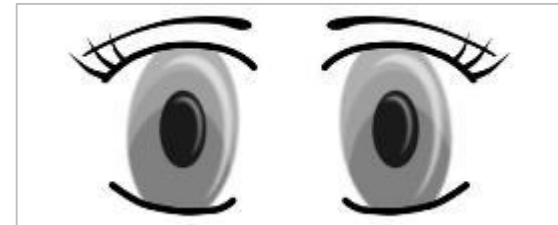
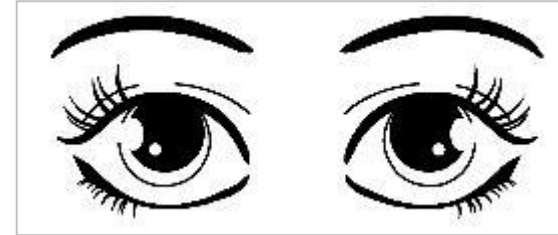
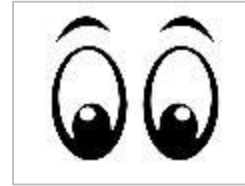
- **Feel like being watched**
 - Socially approved behaviour
 - Automatically (unconscious)



Does the phenomenon work for swimming pool hygiene as well?

Which pair of eyes?

- Pre-test (32 p.o.e)
- Focus (10 p.o.e)
- Questionnaire (1-7)
 - Realistic
 - Serious (authority)
 - Appropriate for Swimming Pool



Influence “Watching Eyes”

- Influence watching eyes
- Influence symbol
- combinations



	No symbol	Symbol
No “Watching Eyes”	Reference	Symbol-only
“Watching Eyes”	Eyes-only	Eyes + Symbol

Poster design



Influence “Watching Eyes”

Measured by means of:

1. Observation
2. Questionnaire
3. Water quality sampling

Intervention design

- Each week a new intervention
- 3 observation days (1 weekend day)
- 3 timeslots (10-12, 13-15, 17:30-19:30)
- Water samples 2x / observation day
 - Urea
 - NPOC
 - TN
- Questionnaire on 4th day



Observation list; data collection

		Date			Time			Temperature:		
No.	Shower (+ / -)	Age (10+, 20+ 30+, 40+, 50+, 60+, 70+, 80+, 90+)	Gender (m/v)	Company (+ / -)	Children (0-10) (+ / -)	Hair wet (+ / -)	shampoo/ soap (+ / -)	Shower time (# x button pushed)	Belongings (+ / -)	Comments (x)
1										
2										
3										
4										
5										
6										
7										



Questionnaire

- General information (gender, age)
- Pre-swim shower? Companions?
- Seen poster? Content? Purpose?
- Hygiene perception (1-7)
- Importance of hygiene (1-7)
- Own behaviour? And others? (1-7)

Results

- 596 observations
- 126 questionnaires
- 24 water samples in duplo

Observed pre-swim shower %

	Control	Eyes-only	Eyes + Symbol	Symbol-only
Sex				
Male	36.1	48.2	51.1	49.4
Female	34.5	43.2	39.3	49.4
Carrying belongings				
Yes	30.4	37.0	31.4	37.3
No	40.0	54.7*	<i>64.5***††</i>	<i>62.0***††</i>

* $p < .05$, ** $p < .01$, *** $p < .001$: indicating a within-group difference, in bold. † $p < .05$, †† $p < .01$, ††† $p < .001$: indicating a between-group difference, in *italic*.

Questionnaire

- 76.6% states having pre-swim showers

Propositions:

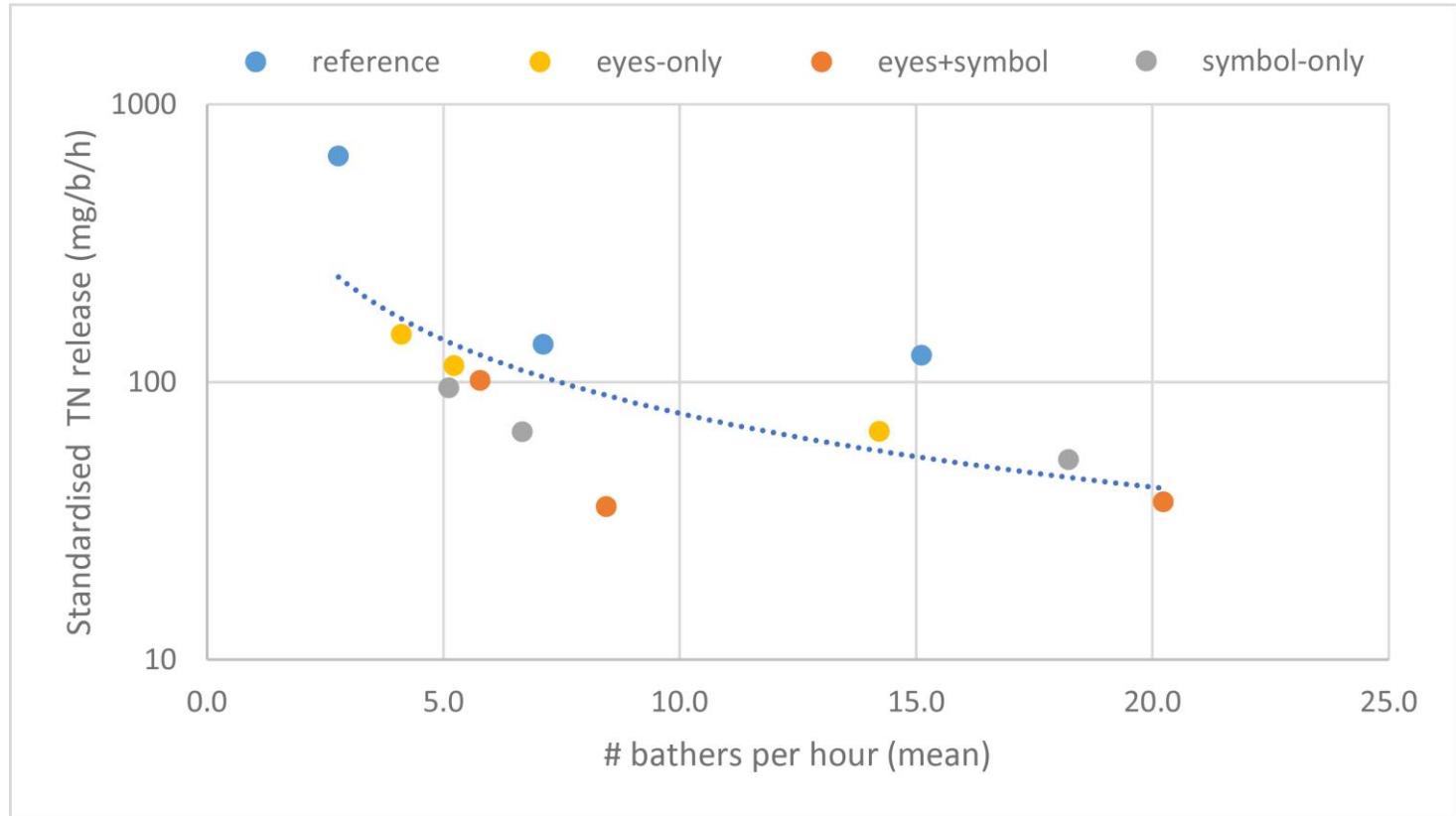
- Scale 1-7 (1 means: totally disagree)
- Perception of hygiene (1-7); 6.09
- Importance of hygiene (1-7); 6.74
- Hygienic behaviour (1-7); 6.63

Water quality

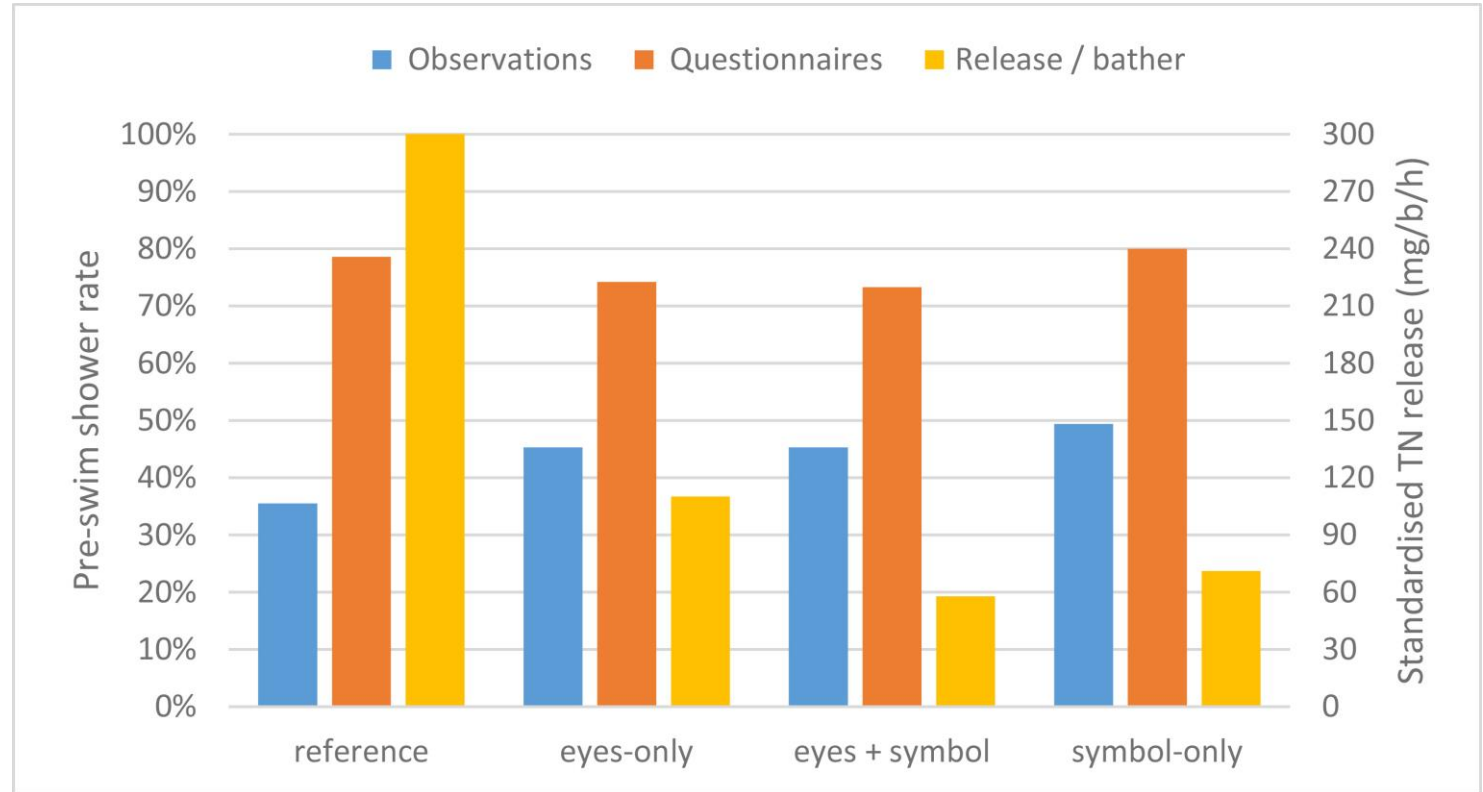
- Release per bather (mg/L) per hour

parameter	reference	Eyes-only	Eyes + symbol	Symbol-only
TN	1.27	0.56	0.30	0.40

Influence # bathers in pool



Resume results



I spy I spy, with my little eye

- Watching eyes do influence hygienic behaviour (2-ways)
- Unclear whether Watching eyes are appropriate
- Combination of different interventions for maximum effect

Maximum effect

- Inform them about why
 - on audio in changing area
 - Video/poster in reception area
- Remind them of what (just before entering shower area)
 - Symbol or short informative message
- Facilitate how
 - Place to store bags without getting wet

Thanks for your attention

Questions ?



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