UNIVERSITY OF COPENHAGEN

Faculty of Science

To pee or not to pee: Implications of urine doping controls on athletes' well-being

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The Problem

A routine doping control is conducted under the observation of a doping control agent and the athlete cannot urinate.

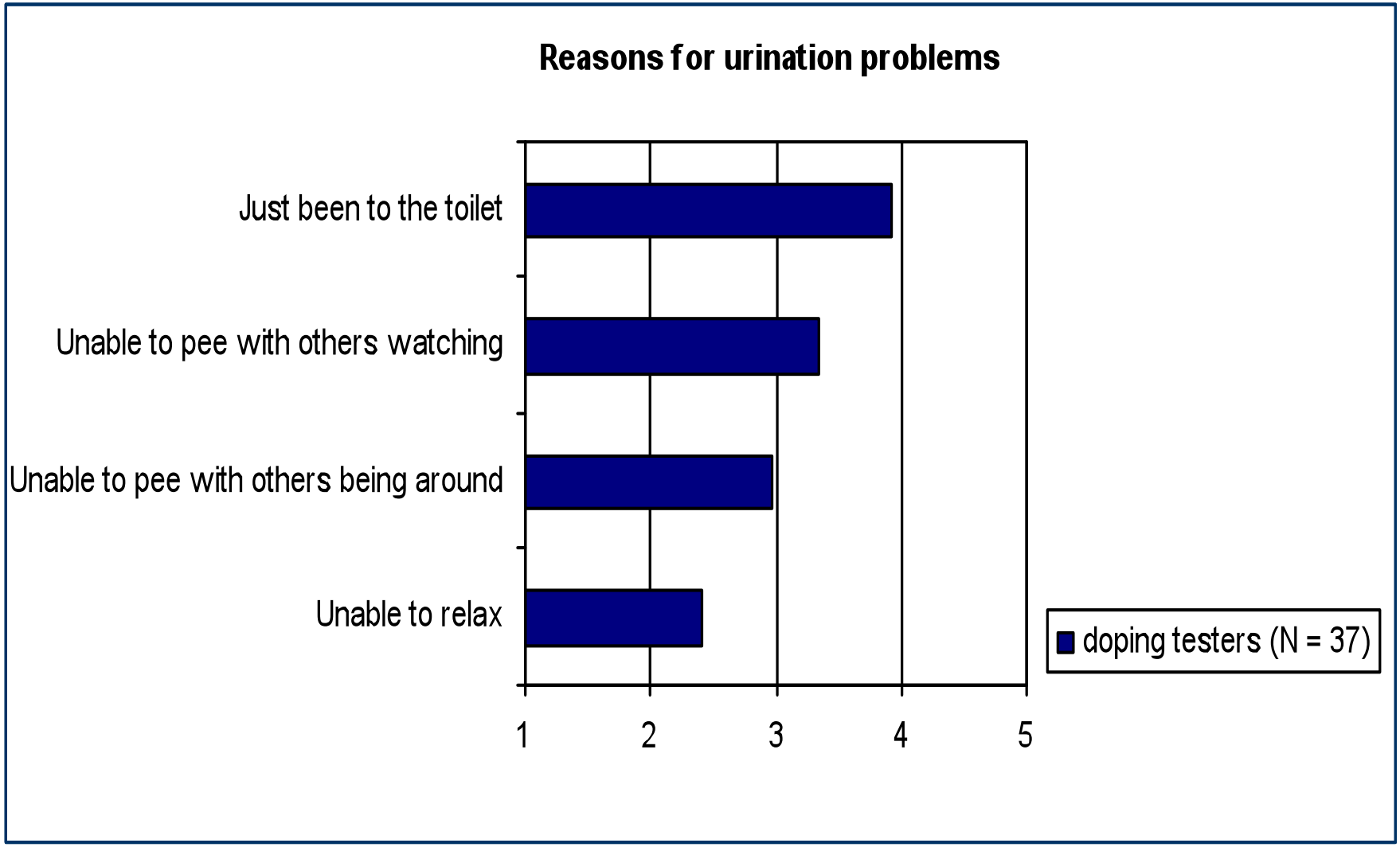
(picture: NADA Germany)

Examples

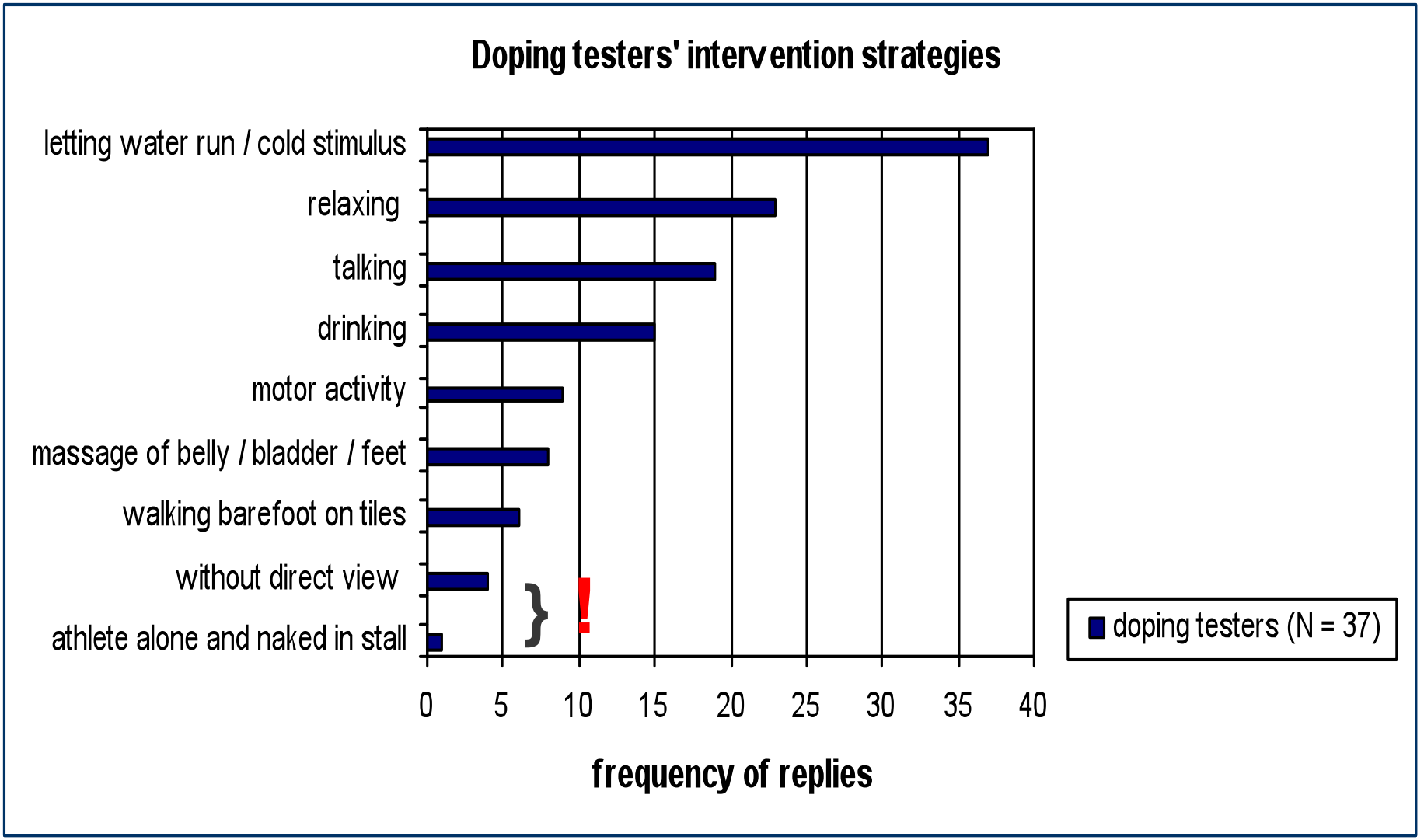
- "I cannot pee while somebody is watching me." (Oliver Neuville, German Soccer National Team, 2006)
- "I simply cannot pee after games. I drink water and mineral drinks until I am full but nothing happens. I usually need about two or three hours until it is over." (Oliver Kahn, goalie, German Soccer National Team, 2007)
- "After winning, several interviews followed. But the worst was the doping testing, which took me two hours." (André Niklaus, Decathlete and World Champion, 2006)

Study 1: Doping control officers

- Study with 37 German doping control officers showed the following (Strahler & Elbe, 2007):
  - 36 of 37 officers were familiar with delays during urine doping tests
  - **Delays occur in 42 % of monthly urine tests**
  - No significant differences regarding sex or age of athlete or type of test (training vs. competition).

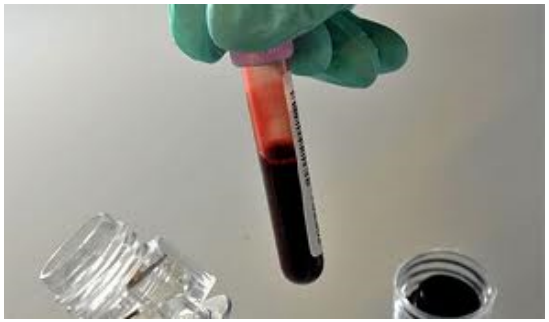


50 % mental
50% physiological


Doping testers' intervention strategies
letting water run / cold stimulus
relaxing
talking
drinking
motor activity
massage of belly / bladder / feet
walking barefoot on tiles
without direct view
athlete alone and naked in stall
}
!
0
5
10
15
20
25
30
35
40
frequency of replies
doping testers (N = 37)

But…

85 % of the testers were in favor of **changing the procedure**.



Possible alternatives:

- blood tests
- video observation of the stall
- testers wearing headphones
- letting athletes go into the stall naked and alone

Comments by the federations

- Athletes are just afraid of being caught
- Just an excuse to postpone / prolong the doping control
- Athletes are not “real men” / paruretics

Studies 2 & 3: Athletes

Research Questions

1. Prevalence
2. Individual differences
3. Relation to Paruresis
4. Implications on recovery and sport performance
5. Relation to social reactancy

Paruresis

Functional micturition failure, which manifests itself in the incapability to urinate in the presence of others (see Williams & Degenhardt, 1954)

Triggers are

→ Presence of other people
→ Violation of privacy
→ Emotional states like anger or anxiety

(Soifer et al., 2001)

In the general population about 7-14% of individuals show symptoms of **Paruresis (PAR)**, the psychological disability to urinate in the presence of others (Hammelstein, 2002).

Onset of Paruresis

Between the age of 12-15

Often caused by “an unpleasant event”, like being harassed by a third person, being rushed by a third person or being unable to urinate during a drug or medical test (Soifer et al., 2010).

Procedure

- Interviews with affected athletes
- Two online surveys conducted in 2008 and 2011
- Paper and pencil survey in 2011

The questionnaire

1. Socio-demographic questions
2. Questions about previous doping controls and experiences with these
3. Psychogenic urine retention during anti-doping tests-Scale
4. Paruresis Scale
5. Dispositional Social Reactancy (Dowd, 1991)

Psychogenic urine retention during anti-doping-Scale (Strahler & Elbe, 2009)

1. Urination problems during anti-doping tests

Urinating during doping controls is a problem for me.

2. Negative anticipation

My training session does not run well if I know the tester is waiting for me.

3. Cognitions and emotions

I worry that someone may think badly of me if I cannot urinate during a doping test.

4. Criticism of test procedure

The worst part is that the officer has to enter the stall with me.

5. Physiological causes

After a competition I am often so tense I cannot urinate.

Sample

- Sample size: *N* = 222
- Sex: male = 122, female = 100
- Age: *M* = 25.3 years
- Nationality:

  → Germany *n* = 179, Switzerland *n* = 40, Austria *n* = 1, Luxemburg *n* =1, missing *n*=1
- A-/B-/C-/D-squad, Olympic athletes, National teams, Youth squad, retired athletes

What the athletes reported …

- "The anti-doping testers had to wait for a couple of hours until the cup was filled."
- "Even though I felt the urge to pee, I could not."
- "It is difficult to urinate while being watched by the anti-doping testers."
- "I had problems urinating in the open setting. Even if my bladder was full, I could not urinate immediately and it often took an extremely long time."
- " I drank almost 8 liters before I could fill the cup."

Prevalence

- *n* = 132 of *N* = 222 (60%) report problems during doping controls
- 63% report this problem in at least half of all previously experienced doping controls
- 52% delays of minimum 1 hour
- No difference between in and out of competition controls
- 56% causes ascribed to mental aspects

Individual Differences

- No gender differences
- No age differences
- No differences related to number of previous doping controls

Prevalence of Paruresis

- 30% of the athletes with PURD can be classified as potentially suffering from paruresis.

- About two thirds of the affected athletes do not suffer from Paruresis!

Implications on Well-being

"Do you feel impaired in your relaxation after competition / training by the urination problems during doping tests?"

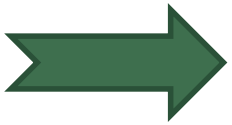
- 38% report impaired recovery.

"Do the urination problems have a debilitating effect on your sport performance?"

- 50% stated that their performance suffered from the problems.

Relationship with Reactancy

Dispositional social reactancy is inversely related to PURD.



Overconformity may be source of pressure

Summary

1. Psychogenic urine retention during doping controls is a problem!
2. Part of the problem can be ascribed to paruresis.
3. Individual differences can not be detected.
4. PURD affects the athletes recovery and sport performance.
5. Over-conformity seems to contribute to the problem.

What now ???

- Education of sport psychologists and doping control officers
- Re-evaluation of urine doping controls
- Education of young athletes before their first doping control
- More focus on recovery strategies after the doping control
- The urine marker!

The urine marker

- Urine samples are traced to the athlete by determining the presence of marker substances, previously ingested
- More than 10,000 different combinations of polythelene glycols as markers are possible.
- First results conducted in the Anti-Doping Laboratory of Kreischa show that the urine marker does not interfere with the doping analysis.
- 71% of athletes were in favor of using a marker (n=83).

Why is the urine marker not available for athletes ???

Aknowledgements

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Thank you for your attention!

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