**“It’s Getting Hot in Here”: Examining the user acceptability of single-use temperature stickers for the detection of hyperthermia for implementation in music festival settings**

Jessica R Chow[1,2,3], Daniel T Winter[1,2,4], Jacques Raubenheimer[1,5,6,7], Benjamin C Riordan[1,8], Tsz Yan Chow[1,3], Paul S Haber[1,2,3,9], Andrew Dawson[1,3,5,6]

*[1]Edith Collins Centre (Translational Research in Alcohol, Drugs and Toxicology), Sydney Local Health District, Sydney, Australia, [2]Specialty of Addiction Medicine, Central Clinical School, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia, [3]Drug Health Services, Sydney Local Health District, Sydney, Australia, [4]Drug and Alcohol Services, Northern Sydney Local Health District, Sydney, Australia, [5]Discipline of Pharmacology, School of Medical Sciences, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia, [6]NSW Poisons Information Centre, The Sydney Children’s Hospitals Network, Sydney, Australia, [7]Discipline of Biomedical Informatics and Digital Health, School of Medical Sciences, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia, [8]Centre for Alcohol Policy Research (CAPR), School of Psychology and Public Health, La Trobe University, Melbourne, Australia, [9]NSW Drug and Alcohol Clinical Research and Improvement Network (DACRIN), Sydney, Australia*

**Presenter’s email:** Jessica.chow@sydney.edu.au

**Introduction:** Drug-related deaths at music festivals have led to calls for harm and mortality reduction strategies. Stimulant use (e.g., 3,4-Methylenedioxymethamphetamine) presents risks like hyperthermia, which can be compounded by ambient (e.g., temperature, poor ventilation) and individual conditions (e.g., dehydration, alcohol, other drug use). Dense crowding and high mobility of festivals demand an innovative approach to temperature monitoring. Single-use temperature stickers, used in settings like anaesthesia, paediatrics, and sports medicine, may serve to detect hyperthermia. We examined whether temperature stickers are acceptable to users undertaking extended physical activity in a controlled environment, as a pilot to determine future use at music festivals.

**Methods:** Exploratory study comparing three temperature sticker brands across four body locations (forehead, upper chest, forearm, wrist). After a high-intensity fitness class, participants (N=204) rated sticker comfort and ease of use (0-10 scale), and provided general feedback. Participants were reimbursed for time with $20 grocery vouchers.

**Results:** Participants were aged 18–63 years (median=28; IQR=23–36); two-thirds female, 30.9% male, and 2.5% non-binary. An ANOVA showed a significant difference in comfort by location; upper chest (mean=8.03; SD=2.03) was more comfortable than wrist (mean=7.27; SD=2.03), forearm (mean=7.22; SD=2.03), and forehead (mean=6.91; SD=2.03). Participants rated the three sticker brands equally comfortable, and no differences in ease of use were reported (overall mean=8.32; SD=1.85).
Participant feedback highlighted user attributes (i.e., perspiration, hair, physical exertion) affecting adhesive effectiveness and comfort. Chest stickers were considered comfortable, wrist stickers were noted to fall off, and forehead stickers were reported uncomfortable and impractical. Sticker design considerations were also noted (e.g., sticker size/length, wrist band design, stronger adhesive).

**Discussions and Conclusions:** Overall, participants found temperature stickers to be relatively easy to use and comfortable, with upper chest most comfortable, and suggestions

provided to improve their overall utility, design, and implementation. Further work is required to assess their use *in situ* at music festival and related settings.

**Implications for Practice or Policy:** Single-use temperature stickers may serve as an indicator for hyperthermia or ill health in high-risk drug use settings, such as music festivals, and may serve as an adjunct for other harm reduction initiatives in these settings.

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