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Mass meets mosh: Exploring healthcare professionals' perspectives on social identity processes and health risks at a religious pilgrimage and music festivals

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ABSTRACT

Rationale: The field of mass gathering medicine has tended to focus on physical factors in the aggravation and mitigation of health risks in mass gatherings to the neglect of psychosocial factors.
Objectives: This study sought to explore perspectives of healthcare professionals (HCPs) on (1) implications of social identity processes for mass gathering-associated health risks; and (2) how social identity processes can be drawn on to inform and improve healthcare practices and interventions targeted at mitigating health risks in mass gatherings.
Methods: Semi-structured interviews, complemented by a brief survey, were conducted with 17 HCPs in the United Kingdom operating at a religious pilgrimage and music festivals.
Results: The findings from a thematic analysis suggest that HCPs recognise that social identity processes involved in identity enactment in mass gatherings are implicated in health risks. HCPs also perceive value in drawing on social identity processes to inform and improve healthcare practices and interventions in mass gatherings. The findings from the survey corroborate the findings from the interviews.
Conclusion: Taken together, the research highlights avenues for future research and collaboration aimed at developing healthcare practices and interventions informed by the social identity approach for the management of health risks in mass gatherings.

1. Introduction

From a healthcare perspective, mass gatherings – such as music festivals and pilgrimages – present complex and multifaceted health risks that can strain healthcare systems (e.g., disease transmission, environmental stressors, and substance misuse; Memish et al., 2019; World Health Organization (WHO), 2015). Yet, as an emerging and rapidly evolving multidisciplinary field, mass gathering medicine remains theoretically underdeveloped (Memish et al., 2019; Steenkamp et al., 2016). Research and practice have tended to focus on physical factors in the aggravation and mitigation of risks in mass gatherings, while often ignoring psychosocial factors (Hopkins & Reicher, 2016a, 2016b, 2017). The WHO (2015) has recognised this paucity and highlighted the need for mass gathering management and research to "consider psychosocial elements in the planning and monitoring of events to ensure public safety" (p. 149). The present research provides a social-psychological perspective of the aggravation and mitigation of mass gathering-associated health risks by exploring perspectives of healthcare professionals (HCPs) operating in two mass gathering settings: a Catholic pilgrimage and music festivals.

Reviews of existing mass gathering literature have identified broad psychosocial factors underpinning health-associated risks (e.g., crowd demographics, motivations, culture, and mood; see Hutton et al., 2013, 2018, 2020). Hutton et al. (2018) suggest that it is important to consider motivations for attending events and subsequent health-related behaviours. For example, music festival attendees may be motivated to escape everyday life, and the use of alcohol and drugs may be integral to this end. Furthermore, crowd culture can include risky behaviours such as 'moshing' (i.e., attendees intentionally crashing into one another) at music festivals, the use of fire in religious rituals, and excessive consumption of unhealthy food and alcohol at sporting events (Hutton et al., 2013, 2020). While this research has made a significant empirical

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contribution to mapping psychosocial factors implicated in mass gathering-associated health risks, it arguably remains theoretically underdeveloped.

A theoretical framework for understanding the psychosocial underpinnings of mass gatherings and health outcomes emanates from the social identity approach, comprising two complementary theories: social identity theory (Tajfel and Turner, 1979) and self-categorisation theory (Turner et al., 1987). The framework posits that people derive a sense of self based on their identity (i.e., as a unique individual) or their social identity (i.e., as a member of a valued social group). When a social identity is salient in a given context, people emphasise their similarities to fellow group members (i.e., the ingroup) and dissimilarities to non-group members (i.e., the outgroup) (Turner et al., 1987). Self-definition in terms of a social identity leads to the internalisation of group beliefs, values, and norms as it provides a social self-concept that prescribes cognitions, emotions, and behaviours normative in given social contexts. This shift from individual to shared social identities is the basis of trust, respect, cooperation, social support, and resilience in groups (e.g., Cialdini and Goldstein, 2004; Jetten et al., 2012; Platow et al., 2012). Shared social identities, in turn, shape health, with positive outcomes resulting from the availability of social support and/or adherence to healthy group norms (i.e., a 'social cure'), and negative outcomes from lack of social support and/or adherence to unhealthy group norms (i.e., a 'social curse') (Dingle et al., 2019; C. Haslam et al., 2018; S. A. Haslam et al., 2018).

While the application of the social identity approach to health has been extensively examined and validated in smaller group settings, a growing body of research has started applying the approach to examining its implications for health outcomes in mass gatherings. The social identity framework distinguishes between two types of crowds: physical and psychological crowds. People in 'physical crowds' have coincidentally aggregated in the same space (e.g., a busy shopping mall) and exhibit a strong sense of personal identity ('I/me') with idiosyncratic beliefs and values. By contrast, people in 'psychological crowds' have gathered for a common purpose (e.g., to attend a music festival) and shift from personal to shared social identities (e.g., 'we/us' festival attendees). Behaviours of different crowds will, in turn, vary as a function of the social identities that are salient in a given mass gathering context (Reicher, 2017). For example, religious pilgrims may subscribe to ascetic norms and values, whereas music festival attendees are more likely to endorse hedonistic norms and values (Hopkins and Reicher, 2016b). Participation in psychological crowds is empowering because it provides a context for the enactment and realisation of shared social identities (Drury et al., 2005; Reicher, 2017). Regarding health outcomes, the experience of sharing a social identity in mass gatherings has been found to improve self-reported wellbeing and health among attendees. Perceiving a shared social identity with other pilgrims attending the Hindu festival *Magh Mela* in India was associated with positive affect – a relationship underpinned by the ability to enact their religious identity (Hopkins et al., 2016). Pilgrims also reported improved self-reported health over time to the extent that they identified and experienced supportive relations with other pilgrims (Khan et al., 2015). Similarly, attendees of a festival for school leavers in Australia experienced mental health benefits when they experienced the event as an enactment of a valued social identity (Cruwys et al., 2019). On the other hand, the experience of sharing a social identity in mass gatherings can undermine health outcomes. Mass gathering attendees have reported decreased health risk perceptions and greater engagement with health risk behaviours when they experience a sense of shared social identity because they also experience attenuated disgust and accentuated trust towards other crowd attendees (Cruwys et al., 2021; Hult Khazaie and Khan, 2019).

Social psychologists have proposed that the social identity framework can contribute to understanding the psychosocial underpinnings of health risks in mass gatherings, along with the development of healthcare practices and interventions designed to mitigate risks (see Hopkins and Reicher, 2016a; 2016b, 2017). Yet, empirical research has to date only consisted of two field studies (Cruwys et al., 2021) and two experimental studies (Hult Khazaie and Khan, 2019) limited to examining social identity processes and health risks using pre-operationalised and closed-ended self-report measures. While these studies have provided empirical 'proof-of-concept' evidence for the theoretical premise that sharing a social identity can aggravate health risks in mass gatherings, research has yet to examine the utility of the premise in the context of healthcare practices and interventions. Exploring the views of healthcare professionals (HCPs) attending to health risks in the field is, therefore, a logical extension of this line of research. The reason for this is twofold. First, given that healthcare practices and interventions may be seen as illegitimate if responders and other authorities at mass events fail to take into account psychosocial, identity-based, transformations in mass gatherings (see Carter et al., 2020), it is important to explore *if*, and if so, *how* HCPs perceive health risks to be implicated in social identity processes in mass gatherings. Second, HCPs with first-hand experience of providing healthcare in mass gatherings could offer valuable and novel 'on the ground' insight to inform how social identity processes can be drawn upon to improve healthcare practices and interventions in mass gatherings. Both lines of inquiry can lead to the identification of priority areas for research, research translation, and collaboration. Accordingly, the current study had two aims: to explore the perspectives of HCPs on (1) implications of social identity processes for mass gathering-associated health risks and (2) how social identity processes can be drawn upon to inform and improve healthcare practices and interventions in mass gatherings.

2. Methods

2.1. Design

The study employed individual semi-structured interviews and a brief survey; each participant completed both components. A qualitative interview method was selected as the primary data collection tool as it is suitable for exploring under-researched topics flexibly and in-depth (Green and Thorogood, 2018). The brief survey ensured triangulation of data to provide a more comprehensive perspective of the findings than either approach could achieve separately (Campbell et al., 2020). Furthermore, the survey complemented the qualitative approach in that it sought to gauge participants' perspectives about the role played by social identity processes in the aggravation and mitigation of mass gathering-associated health risks after having reflected upon this in-depth in the interview. Ethical approval was provided by Keele University's Psychology Research Ethics Committee (ref: PSY-190057).

2.2. Participants

The sample consisted of 17 HCPs (6 males, 12 females) residing in the United Kingdom (UK). Participants fulfilling three essential criteria were recruited: (1) experience of delivering healthcare in a mass gathering setting; (2) HCP qualification; and (3) English language proficiency. Five participants were recruited from a UK-based nursing team providing healthcare for pilgrims at Lourdes in France and 12 via event medical providers (henceforth 'EMP') delivering healthcare at primarily large music festivals. Information about the study was disseminated to HCP-teams via email. Interested HCPs contacted the first author and received further information about the study and agreed on a time for an interview. Informed consent was obtained at the time of the interview. An additional six HCPs indicated an interest in participating but did not schedule an interview due to time constraints ($N = 1$) or other reasons ($N = 5$). HCPs recruited via the EMPs primarily commented on their experiences concerning the UK-based music festivals Glastonbury, Reading, and Shambala, whereas HCPs from the Lourdes team solely reflected on the Lourdes pilgrimage. Participant characteristics appear in the supplementary materials.

2.3. Materials and procedure

Individual interviews were conducted between July and November 2019 by the first author, a female Ph.D. candidate trained and experienced in conducting interviews. Twelve interviews were conducted over the phone and five face-to-face in secluded spaces. Following introductions and informed consent, participants were interviewed using a semi-structured interview schedule developed by the first author and edited by the third author (see the supplementary materials). The schedule covered four areas: 1) experiences of providing healthcare in mass gathering settings; 2) prevalence and underpinnings of health risks in mass gatherings; 3) implications of social identity processes for health risks in mass gatherings, and 4) utility of social identity processes in the design of healthcare practices and interventions in mass gatherings. Follow-up questions were asked based on individual interview responses allowing for communication of unanticipated and deepened insight (Patton, 2002).

Interviews lasted between 24 and 69 min (M = 45.53, SD = 12.09) and were audio-recorded with participants' permission. After ending the interview, participants interviewed over the phone were asked to complete a brief survey hosted on the survey platform Qualtrics (www.qualtrics.com), whereas participants interviewed face-to-face were asked to complete an identical pen-and-paper survey. The survey contained five items developed for the study to assess beliefs about the importance of social identity processes in the aggravation and mitigation of mass gathering-associated health risks (items are presented in Table 1 under 'Results'). Responses were collected using five-point Likert-type scales, anchored by the endpoints '1' ('*Strongly disagree*') to '5' ('*Strongly agree*'). Participants were subsequently thanked, debriefed, and offered a retail voucher for their participation.

2.4. Data analysis

Interview audio-recordings were transcribed verbatim by the first author. As the accuracy of the interviews' content rather than language patterns and non-verbal cues was prioritised, speech disfluencies and filler words were removed from the transcripts to improve readability (MacLean et al., 2004). Final transcripts were uploaded into NVivo 12 and analysed using thematic analysis, which was selected because of its flexibility in that it is not tied to any particular epistemological or theoretical framework and can generate complex and nuanced analyses (Braun and Clarke, 2006). The analysis was guided by the six steps outlined by Braun and Clarke (2006): 1) familiarisation with the data; 2) generation of initial codes; 3) searching for themes; 4) reviewing themes; 5) defining themes; and 6) producing the report. The first author was involved in all steps and the second and third authors were involved from step four onwards to ensure that the themes represented a credible analysis of the data (Shenton, 2004). There were no notable disagreements in the identification of themes between the authors.

A deductive approach was taken, informed by the social identity approach; segments of the transcripts concerning social identity processes and health risks were coded and subjected to further analysis. Yet, the deductive approach was supplemented by inductive elements to allow for original insight unaccounted for by the theoretical framework. Furthermore, the analysis was conducted within an experiential, contextualist framework focusing on observations and interpretations conveyed by the HCPs in their own language (e.g., what they believed constituted social identity processes and their implications for health risks; Reicher, 2000). Data collection and analysis continued until saturation had been achieved (Saunders et al., 2018). The analysis discerned two overarching themes with five and three sub-themes, respectively. The first overarching theme concerned HCPs' perspectives on the implications of social identity processes for mass gathering-associated health risks. The second overarching theme concerned their perspectives on the role of social identity processes in healthcare practices and interventions in mass gatherings. There were no significant disagreements in the HCPs' accounts. Still, some HCPs were more articulate in their understanding of social identity processes, and some described particular dimensions in greater depth than others. Quotes have been selected to illustrate the themes. Within quotes, "…" indicates text has been removed for brevity, and text within brackets has been inserted for clarity. Quotes are followed by the participant key, 1–17 combined with 'L' or 'E', wherein the letters denote whether the participant was recruited from the Lourdes or EMP teams, respectively.

3. Results

3.1. Perspectives on social identity processes and health risks in mass gatherings

This overarching theme addresses the first aim of the study: exploring HCPs' perspectives on the implications of social identity processes for mass gathering-associated health risks. Although HCPs reported health risks such as sun exposure, chronic condition complications, and sprains/fractures as highly prevalent within music festivals, they primarily focused on alcohol and substance use when reflecting on the implications of social identity processes for health risks. As for Lourdes, the risk most prevalently discussed pertained to the frailty of elderly, disabled, and sick pilgrims and how they may compromise their health by engaging in religious rituals.

3.1.1. The manifestation of a shared identity

This theme explores HCPs' perspectives on a shared social identity among attendees in mass gatherings. Although some HCPs initially expressed that they found it difficult to articulate the concept of a shared social identity and its manifestations, they all believed that attendees typically share a social identity, and provided elaborate descriptions and examples reflecting their understanding of the concept. Several HCPs emphasised that attendees are united by the hardships of the mass gathering, strengthening their shared identity: "*There is a 'We're all in this together' attitude … 'We're all in that field, in that burning sunshine or torrential rain and mud'*" (E14). Yet, this was suggested by a few HCPs to take precedence over healthier choices. Although "*very elderly and frail*" (L1), pilgrims insisted on leading a procession under extreme weather conditions and many became ill afterwards:

> *It was absolutely pouring down with rain … It was horrendous and cold … They were all saying 'We've got to go because it's [our diocese] leading the pilgrimage and we've got to lead the way' … That's where it made me realise that sense of identity really.* (L4)

One HCP inferred that music festival attendees may use empathogenic substances to reinforce a shared identity:

> *You get this group of festival-goers who come together because they like some particular type of music and then they all take this particular drug, this ecstasy or MDMA, and then it just intensifies that group identity, brings them even closer together.* (E12)

HCPs described mutual social support as an expected etiquette within mass gatherings, expressing that "*it's an expected norm … that everybody looks out for everybody else*" (E15). Reciprocity of support and trust, often manifested through resource sharing, even among attendees who were strangers to one another, was further emphasised:

> *Everybody who's sat around the bonfire will all be sharing the spliff and there's no questions … It doesn't matter whether the person sat next to [them] know them or not.* (E15)

> *If somebody hasn't got something,* they'll *say 'Oh have my towel, I've got another one.'* (L1)

On the one hand, the amiable atmosphere associated with a shared identity was perceived to increase attendees' acceptance and tolerance

towards one another. On the other hand, the corollary of such an atmosphere, at music festivals, in particular, is the acceptance of risk behaviours, including underage drinking and substance use: "*People are more accepting of it happening. You wouldn't accept ten fourteen-year-old teenagers who were off their heads on drink or drugs at a party*" (E17). HCPs further described nuances in identities within and between events, emphasising that some mass gathering- and sub-identities have stronger associations with unhealthy norms:

> *If you're next to the dance stand, by definition you will see a lot more people who take a lot more drugs … If you work at a different part of the site, maybe next to the circus or something like that, it'll be a different clientele.* (E17)

3.1.2. Identity shifts and expressions

Most HCPs identified that when people enter a mass gathering, they experience a shift to a more salient identity for the duration of the event. This theme, therefore, focuses on HCPs' descriptions of how shared identities become salient and are enacted, and to what purpose:

> *You do leave something of your old self behind at the gate and you're somebody different while you're there.* (E8)

> *I'm pretty sure when they get back home, most of them switch back into their normal selves.* (E6)

HCPs recognised that the basis for how event attendees define themselves is transformed by the mass gathering. They further explained how attendees' behaviours are shaped by the event-specific identity and how they come to embody and express this identity, which could involve engagement with health risks normative within the mass gathering context:

> *We are uncertain what happens to the water you're being submerged in, people with wounds, people that have been incontinent, but there is definitely a norm that going to the baths is something that you do because you've gone to Lourdes and that's one of those expressions of your faith.* (L1)

Similarly, for some attendees, participating in a mass gathering may be part of affirming a distinct identity. HCPs described the normative practice of alcohol and substance use at Reading as "*a rite of passage for people when they've done their GCSEs*" (E15). Young people convene at Reading, which commences just after GCSEs have finished, to celebrate and mark the occasion. Attendance at Reading was therefore viewed as part of the transition from an adolescent to an adult identity:

> *I think most of the drinking goes on with the underage … Well, it's that pressure, isn't it? To become an adult. Almost every sixteen-year-old will tell you … 'I'm an adult because I got nine grade nines of GCSEs.'* (E7)

This transition and affirmation of a new, distinct identity (i.e., that they belong to the 'adult category') was conveyed to be expressed through engagement with alcohol and substance use norms of the event. One HCP explained how this was also apparent concerning unprotected sex:

> *Groups of girls come in … and they're all wanting the morning after pill … They make it some sort of pact between them that they're gonna have sex at the festival, to get that done, get that out the way.* (E6)

3.1.3. Breaking social norms

The following theme explores HCPs' perceptions of the motivations behind mass gathering attendance and risk behaviours. Several HCPs believed that attendance at music festivals may be motivated by a desire to break social norms one would not normally break in other social contexts. They described that the norms and conventions of society are often temporarily replaced by event-specific (potentially unhealthy) norms within the realm of the mass gathering:

> *People are there behaving in a way that they don't necessarily behave in the rest of the time, in much freer … possibly hazardous circumstances.* (E14)

> *I think that normal health behaviours do tend to go out the window a little bit.* (E8)

Relatedly, HCPs described how the belief that some behaviours are normative at music festivals can undermine health risk perceptions:

> *She'd been found in possession of ecstasy, cannabis, and ketamine … She started assaulting the police and they pointed out that they could have done a full possession and she said 'Well, why? Everybody here has got drugs, what difference does it make?'* (E7)

Moreover, most HCPs spoke of how mass gathering attendance constitutes a 'holiday' for many attendees. For music festivals, a sense of fun and freedom from responsibilities may be sought as part of the holiday, motivating risk behaviours that may be less socially acceptable elsewhere:

> *A lot of people are up for [unprotected sex]. It's like a holiday … You're surrounded by other people who will want to have a good time.* (E17)

> *I've met quite a few people who only smoke at festivals because they live and work in places where you can't smoke, or it's frowned upon, so they do it when it's part of being on holiday.* (E7)

This was seen to be further exacerbated by an increased willingness to engage with novel, potentially risky behaviours, believed to have little consequence for their health: "*I think you just think … 'Well, it's okay because I'm here … I would never do it outside, but I can do it while I'm here*'" (E8).

3.1.4. Normative pressure

The following theme describes HCPs' perceptions of how engagement with unhealthy norms may be enforced or encouraged by fellow attendees, both directly and indirectly. Regarding indirect normative pressure, some HCPs suggested that if an attendee is part of a collective engaging in unhealthy norms, they would be motivated to conform:

> *There'd be a certain time when it's actually better for you to not carry on drinking or taking drugs, but if it's a whole group of friends … who are continuing to engage in that, then I think that would be a very strong influence for you to carry on.* (E10)

Moreover, adhering to an unhealthy norm may be motivated by perceived pressure to do so:

> *I think things like in torrential rain going on a nighttime procession, you're doing that because of the pressure of the group norm.* (L1)

> *I've had people give me the drugs and say 'I don't really know, but I felt under pressure.'* (E8)

HCPs further reflected on how attendees may engage with unhealthy norms for reasons of social approval, to fit in with a collective, or for fear of being ostracised:

> *People feel pressured … about the drug and drink and that, they might choose to do a particular action because they don't want to be left out of the group.* (E9)

> *If it's one person out of a car of four who was ill, you're not going to say much to the other three until you're really, really bad … They're not going to be very friendly to you.* (E7)

Hence, HCPs described how attendees may want to experience a shared identity (and the sense of belonging it creates) by conforming to the perceived norms of the event-specific identity, even though it may

conflict with personal and/or social values salient outside the mass gathering. Furthermore, the quote from E7 highlights a view shared by several HCPs – attendees may refrain from seeking medical attention in fear of ruining the experience of their collective. The pursuit of social approval was also believed to extend beyond the bounds of the mass gathering:

> *They want to have a bit of a tale to tell … They want to get really far at the front, and there's actually a mosh pit, to say you've been there and done it.* (E9)

> *People sometimes see it as a trophy to have got as intoxicated as possible.* (E10)

Turning to the experience of direct normative pressure, HCPs reported that attendees may actively exert pressure on others to engage with a perceived norm:

> *It might be they're in a group and they all do [drugs] together, like a peer pressure thing … Perhaps being encouraged to partake in something that could potentially kill them, actually.* (E9)

> *'You must come to mass', even though they're not feeling quite so well that day, but they feel that they need to go because their friends are going. I would think there's a little bit of persuasion, definitely 'Come, come, come.'* (L2)

The exerted pressure may not necessarily be carried out maliciously but rather to encourage others to fully enjoy the experience of the mass gathering (i.e., to enact the event-specific identity), as was suggested in relation to Lourdes: "*The lady who wasn't well, they wanted her to go just to be part of it"* (L4).

3.1.5. Navigating health risks through experience

The preceding themes touched on the importance of experience in navigating mass gathering-associated health risks – nuances of this concept are elaborated further under this theme. HCPs operating at music festivals noted that experience coincides with age, whereas age was often in and of itself referred to as a health complication among HCPs operating at Lourdes. HCPs stressed that not all attendees at music festivals break social norms or are affected to the same degree by normative pressure – identity shifts and expressions also differ across time and context. HCPs often compared and contrasted the interaction between age, experience, and norms within and between events. Reading was described to foster engagement with alcohol and substance use and was referred to as "*carnage"* (E13), "*a sixth form disco on acid"* (E8), and "*a massive drinking sleepover"* (E6). This was attributed to the young age of attendees and associated (experimental) norms:

> *You got young people with little experience of alcohol and drugs trying it out for the first time in the absence of proper supervision, so inevitably it doesn't always go well.* (E11)

Inexperience with alcohol and substance use at Reading was frequently the reason for attendees requiring medical attention. This was understood to be exacerbated by a sense of invulnerability inherent to being young and belonging to a collective: "*You're invincible when you're with friends. The group, the team is going to cope*" (E7). By contrast, seasoned, often older, attendees – typically at Glastonbury and Shambala – were described as more responsible, lessening substance-related (and other) complications prevalent among younger inexperienced attendees: "*Young people actually have to be taught how to have fun because it's not fun when you're lying in the medical centre"* (E7). Although seasoned attendees still engage with health risks, they do so in a risk-aware and regulated manner that enhances as opposed to undermines the mass gathering experience:

> *The Glastonbury drug user tends to be a more mature drug user and knows what they're doing.* (E8)

> *It doesn't mean that they don't get drunk, but at least they've got more sense of when to stop.* (E14)

3.2. Perspectives on the incorporation of social identity processes into healthcare practices and interventions in mass gatherings

This overarching theme focuses on the second aim of the study: exploring HCPs' perspectives on how social identity processes can be drawn upon to inform and improve healthcare practices and interventions in mass gatherings. There was an overall consensus among HCPs about the utility of the approach.

3.2.1. Messages from leaders and fellow ingroup members

Several HCPs believed that a shared identity among attendees could be reinforced by 'leadership figures' and, in turn, used to mitigate risks:

> *If a performer at a mass gathering, if the footballers on the pitch or the bands on the stage are promoting particular ideas, it's going to have a lot more traction than the nanny state, as it's called, telling you to put some sunscreen on and drink less beer and don't take any drugs.* (E11)

Messages from leaders (e.g., pop stars and sports personalities) compared to actors with which recipients do not identify (e.g., event organisers or HCPs) were thought to increase compliance as they are respected and seen as trustworthy: "*Those are the sorts of people they look up to. People like me, I'm just old, I could be somebody's grandma, so it's no use*" (E14). Likewise, messages from peers were suggested as effective:

> *If you see people benefiting from doing a certain thing … and you're part of that group, potentially you're going to stand up and listen … Sometimes people will listen to others in a similar situation as opposed to experts*. (L4)

Moreover, messages advocating safeguarding of the collective's wellbeing were seen as a potential avenue:

> *It takes one person to be aware of the risks, to put their head above the parapet … and say 'Actually let's not get ourselves into a state, let's have a good time without putting health at risk and look after each other.'* (E16)

3.2.2. Signalling a shared identity

A few HCPs identified that it may be important to bridge the gap between attendees and HCPs by creating a shared identity between them:

> *Although we are there to help them … we are still seen as authority figures. Perhaps we shouldn't leave the fairy wings outside, perhaps we should wear them … If you put a name badge on, that means you're official. We always stress that we're not going to get anybody into trouble … but there's that suspicion that we're official.* (E8)

Making salient a shared identity by diminishing the distinguishing characteristics of HCPs (i.e., uniforms or badges) vis-à-vis attendees was believed to have the potential to increase trust and cooperation and thereby facilitating treatment. Attendees presenting with substance-related complications were described as often unwilling to cooperate by disclosing their substance use in fear of 'getting in trouble'. However, in a different mass gathering context (Lourdes), uniforms or badges may encourage attendees to seek help from HCPs:

> *My team wears identifiable colours so that anybody on the pilgrimage can spot somebody and actually the pilgrims know the people in the hoodies with our logo on, that they are safe people to ask for help*. (L5)

HCPs stressed that attempts to prevent normative risk behaviours inherent to identity enactment completely, such as substance use, are unlikely to be effective. It may instead lead to further resistance towards HCPs, making the distinction between 'authorities' (e.g., event

organisers and HCPs) and attendees even more salient:

> *If you're authority, your goal is nobody takes drugs. I don't think that works because that's going against something that's very normalised within that sort of social group within festivals and I think that would then reinforce that 'us, them' approach.* (E13)

It was suggested that creating a common goal between authorities and attendees (e.g., safer substance use through drug-testing facilities) could be effective. Relatedly, a small number of HCPs expressed that although security personnel are typically helpful, they can occasionally undermine the trust and cooperation HCPs attempt to build:

> *Some of the patients … have been injured or upset by security. So sometimes the security are the cause of the problems that we get … Maybe it can be kind of helpful to create a bit of a separation between [healthcare professionals] and the police and security.* (E12)

HCPs suggested that this issue could potentially be addressed by highlighting the distinctiveness of their professional role and identity vis-à-vis security personnel and the police.

3.2.3. Focusing on norms

Many HCPs believed it to be important to draw on social norms in the design of healthcare interventions:

> *Changing behaviours is much more about social norms and social expectations … Try and draw on the shared experience and the idea that 'We festival-goers behave like this, we Man-u supporters behave like this.'* (E11)

Emphasising expected etiquette (i.e., norms) through messages "*about how to behave, how not to behave*" (E9) was identified as a potential avenue. Similarly, it was recognised that there was an opportunity to shape norms through health messages: "*Things like drug-testing, I think that could be something that could be normalised*" (E13). In line with this, going against these norms could be conveyed to result in social disapproval by peers:

> *If you turn up sunburnt … people shun you and treat you in a very different way. So it's not messages about 'Put on sunscreen because you won't get skin cancer', it's 'Put sunscreen on because if you don't, it'll go pink and start peeling, all your mates will laugh at you.'* (E11)

3.3. Survey findings

Descriptive statistical analyses were performed to analyse survey data, using IBM SPSS Statistics software (version 24.0); the results are summarised in Table 1. The majority of HCPs agreed or strongly agreed with the survey items (85.88%), further indicating that HCPs perceive value in considering social identity processes in the aggravation and mitigation of mass gathering-associated health risks.

4. Discussion

This study aimed to explore HCPs' perspectives on the implications of social identity processes for mass gathering-associated health risks, and how these processes can be drawn upon to inform and improve healthcare practices and interventions. Regarding the first aim, HCPs' accounts highlighted a range of psychosocial factors and processes believed to aggravate health risks. Many, if not most, of these psychosocial factors and processes arguably parallel theoretical tenets formulated by the social identity approach, and empirical evidence in support of these tenets.

The psychosocial factors and processes described by the HCPs pertained to the supportive nature of psychological crowds (e.g., see Hopkins et al., 2016), engendering acceptance of health risk behaviours and a desire to enhance a shared identity through risk-taking and endurance. This observation resonates with theory and research demonstrating that the accentuation of trust and support emanating from sharing a social identity in mass gatherings undermines health risk perceptions and behaviours (Cruwys et al., 2021; Hopkins & Reicher, 2016a, 2016b, 2017). HCPs also described that engagement with health risks may serve to express and affirm identities and a sense of freedom. This is in line with research situated in mass gathering and other settings demonstrating that engagement with health risks may serve to express and affirm social identities (Oyserman et al., 2007), and a sense of freedom – or escapism, as suggested by Hutton et al. (2018). This transformation has been referred to as 'collective self-realisation' (CSR) – the ability to enact a social identity in a mass gathering – and is a source of positive affect and empowerment (Drury et al., 2005; Hopkins et al., 2016). Yet, when enactment is entwined with normative shifts and associated pressures towards engagement with health risks, CSR may constitute a 'social curse' (i.e., when group memberships harm health; C. Haslam et al., 2018). Furthermore, HCPs described that engagement with health risks can be motivated by both direct and indirect normative pressure. This observation arguably corresponds to research findings from non-mass gathering contexts showing that norms exert the greatest influence when people share a social identity (Louis et al., 2007), and are followed to express and affirm group affiliation (Cialdini and Goldstein, 2004); group members may, in turn, pressure and feel pressured by other group members to conform (Johnston and White, 2003; Livingstone et al., 2011). Finally, HCPs described that more experienced attendees adopt more risk-averse strategies that optimise identity enactment and its positive effects (Drury et al., 2005; Hopkins et al., 2016) – research has indeed shown that risk-awareness and regulation develop through experiencing and witnessing adverse effects of engagement with health risks (e.g., Beaulieu et al., 2020).

Turning to the second aim of the study, HCPs expressed value in drawing on social identity processes to inform and improve healthcare practices and interventions and proposed multiple suggestions. These were primarily based on their insight from working in the field and can again be mirrored in social identity theory and research. First, HCPs

Table 1
Descriptive statistics from the survey data.

Item	Frequencies (%)					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (SD)
It is important to consider psychological factors in mitigating mass gathering-associated health risks.	0	0	1 (5.9%)	7 (41.2%)	9 (52.9%)	4.47 (0.62)
Shared social identity in mass gatherings can encourage attendees to engage in health-impairing behaviours.	0	0	3 (17.6%)	7 (41.2%)	7 (42.1%)	4.24 (0.75)
For effective mitigation of health risks in mass gatherings, it is necessary to consider the health-impairing effects of shared social identity.	0	0	2 (11.8%)	10 (58.8%)	5 (29.4%)	4.18 (0.64)
Healthcare professionals would benefit from receiving information/training on how to mitigate mass gathering-associated health risks by drawing on shared social identity.	0	1 (5.9%)	2 (11.8%)	8 (47.1%)	6 (35.3%)	4.12 (0.86)
If I were to provide healthcare in a mass gathering in the future, it would be beneficial for me to receive information/training on how shared social identity can affect health-impairing behaviours.	0	1 (5.9%)	2 (11.8%)	10 (58.8%)	4 (23.5%)	4.00 (0.79)

suggested that health messages disseminated by sources with which attendees may perceive a shared identity, both leaders (e.g., performers and religious leaders) and peers, as opposed to 'authorities' (e.g., event organisers or HCPs), could increase source credibility and thereby compliance. Second, and along similar lines, fostering trust and creating common goals by making salient a sense of shared identity between attendees and HCPs (or other event authorities) was believed to facilitate adherence to health messages and treatment. These suggestions resonate with the social identity approach, which posits that perceptions of authorities' legitimacy are entwined with a shared identity; compliance can be increased by developing a shared identity with authorities (e.g., at mass emergencies and football events; Carter et al., 2020; Stott et al., 2020). Research from non-mass gathering settings has also shown how trust in authorities increases compliance with health policies and messages (Blair et al., 2017), whereas the lack of trust has the opposite effect (Alsan and Wanamaker, 2017). People with which one shares a social identity are more likely to be perceived as trustworthy and credible and, in turn, persuasive, even when they are strangers (Cruwys et al., 2021; Platow et al., 2012; Turner, 2005). Similarly, leaders who are viewed as prototypical of the group ('one of us'), acting in the interest of the group, and who propagate a sense of shared identity ('we are all in this together') exert greater influence (e.g., see Haslam et al., 2011). Third and finally, HCPs suggested that health messages that define norms and highlight social consequences of norm violations could be useful (e.g., getting sunburnt by neglecting to use sunscreen). This again reflects research showing that norms exert the greatest influence when people perceive a shared social identity and that social disapproval can increase conformity (Nelissen and Mulder, 2013). Hitchings et al. (2018) reported that music festival attendees who reflected on hygiene anxieties tended to regard social disapproval of their unhygienic behaviour as a greater concern than the physiological sensation of poor hygiene.

4.1. Implications and future directions

The findings highlight common ground and understanding between social identity theorists and HCPs about how social identity processes can aggravate and mitigate engagement with health risks in mass gatherings. This understanding can potentially pave the way for future collaborations aimed at furthering knowledge about the implications of social identity processes for health risks, and devising practices and interventions that draw on social identity processes to manage health risks. The translation of the social identity approach into policy and practice to manage other salient mass gathering specific risks, such as disorder and violence in football crowds (Stott et al., 2020) and evacuations during mass emergencies (Carter et al., 2020), have already proven effective. We believe that the same can be the case for the management of health risks in mass gatherings.

The key to managing health risks, and ensuring health, safety, and wellbeing in mass gatherings, lies in devising practices and interventions that are perceived as legitimate within a given mass gathering context. Legitimacy is, in turn, predicated upon an understanding of how mass gatherings involve the enactment of social identities. What social identity enactment exactly involves will differ from mass gathering to mass gathering, and it is particularly important to give this variability, or arguably specificity, close attention. If every mass gathering involves the enactment of a particular set of identities, it may also involve engagement with a particular set of health risks. Healthcare practices and interventions that are effective, or in other words perceived as legitimate, therefore need to take into account how and what cognitions, emotions, and behaviours are transformed and intertwined with identity enactment in a given mass gathering context.

Moreover, and importantly, social identity enactment has implications for how groups define themselves in relation to other groups, whether it be supporters of rival football teams, the police force, emergency responders, or healthcare professionals. This makes it particularly important that healthcare practices and interventions are devised in a way that supports and enhances, rather than undermines, identity enactment. Attempts to completely prevent attendees from engaging in risk behaviours perceived as integral to identity enactment may be perceived as illegitimate and met with resistance and even resent, rendering them ineffective. At the most basic level then, HCPs (and other authorities) operating in mass gatherings would benefit from receiving training about crowd psychology, with a focus on how health risks are implicated in social identity processes. However, it is important not to overlook the insights offered by HCPs as a basis for future research. More specifically, the accounts of the HCPs in this study point to the necessity of paying closer attention to the nature of normative pressures that may arise from social-relational transformations integral to identity enactment, and how engagement with health risks may both enhance and undermine the positive effects of mass gathering participation. The findings also suggest that efforts to improve healthcare practices and interventions should focus on examining the effectiveness of promoting health messages by invoking shared identities, values, norms, and goals.

These findings are also of relevance for understanding and managing collective behaviour during the ongoing COVID-19 and future pandemics. They demonstrate the effectiveness of communicating health messages aimed at curtailing transmission of the virus through trusted leaders and ingroup members, with an emphasis on the shared goal of protecting the collective. For examples of a social identity perspective on COVID-19, see Cruwys et al. (2021) and Jetten et al. (2020).

4.2. Limitations

Even though the HCPs who participated in the study had experience providing healthcare in a range of mass gatherings, the sample was self-selected, and their perspectives do not reflect the full spectrum of mass gathering contexts. There was also a smaller number of HCPs from the Lourdes team compared to EMP teams – the general focus on alcohol and substance use in the findings arguably reflects this asymmetry. Yet, this limitation further underlines the necessity of adapting health practices and interventions to specific mass gathering contexts and identities. In contrast to the EMP teams, the HCPs from the Lourdes team focused on religious rituals and frailty-related risks. For example, had HCPs providing healthcare at football events been interviewed, there may have been a greater focus on inter-group violence and excessive consumption of alcohol and unhealthy food (Hutton et al., 2013). Finally, it is important to reflect on some *epistemic gaps* left by our approach to this research (see Simandan, 2019). There are certainly other psychosocial factors and processes that affect health risks in mass gatherings that were not explored and HCPs, therefore, did not articulate in this research. These can be, and have been, unearthed with alternative theoretical and methodological approaches (for examples, see Hutton et al., 2013, 2018, 2020). Furthermore, the HCP perspectives offered in this research, and research into mass gatherings and health risk behaviours guided by the social identity approach to date, do not attend directly to the motives that mass gathering attendees themselves, in their own language, ascribe to their engagement with health risks.

5. Conclusions

HCPs recognised that the social-relational transformations that occur in psychological crowds may undermine health risk perceptions and behaviours – pointing to a range of social identity processes reflected in theoretical tenets and empirical evidence in support of the social identity approach. HCPs also perceived value in drawing on these processes to inform and improve healthcare practices and interventions. The findings further highlight that understanding the identities of crowds is central to the management of health risks and ensuring safer mass gathering experiences.

Author statement

Daniella Hult Khazaie: Conceptualisation, Methodology, Investigation, Formal Analysis, Data Curation, Writing – Original Draft, Final. Clifford Stott: Supervision, Data Curation, Writing – Review & Editing. Shahzad Sammyh Khan: Conceptualisation, Supervision, Validation, Data Curation, Writing – Review & Editing.

Declaration of competing interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.socscimed.2021.113763.

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