

Title:

Community-Based Full-Spectrum Harm Reduction Approaches when Caring for Psychoactive and Psychedelic related problems in a Transformational Festival.

Authors:

Maria Carmo Carvalho; Cristiana V. Pires; Inês Macedo; Helena Valente; Ana Luísa Costa; Daniel Martins; Raquel Lira; Paula Frango

Kosmicare Association is an NGO based in Portugal created in 2016 and born out of Boom Festival that works to transform nightlife culture through humanistic, comprehensive and evidence-based interventions and policies that capacitate nightlife governance and offer psychedelic harm reduction, outreach work, drug checking, information, training and good practice exchange. **Helena Valente, Daniel Martins, Cristiana Vale Pires, Inês Macedo, Ana Luísa Costa, Raquel Lira and Maria Carmo Carvalho** are founding members of the Kosmicare Association.

They have been working for many years in harm reduction in several problematic and recreational drug use environments, as project coordinators and drug checking professionals. They have been involved in the coordination of the integrated harm reduction services at Boom Festival - Portugal. Maria Carmo Carvalho, PhD, is a Clinical Psychologist. Cristiana Pires, PhD is a psychologist and anthropologist. Inês Macedo, MD is a psychiatrist. Helena Valente and Ana Luísa Costa are psychologists and PhD candidates at the Faculty of Psychology and Educational Sciences of the University of Porto. Daniel Martins is a chemist and PhD candidate at the Faculty of Sciences of the University of Porto. Raquel Lira is a psychologist with a Masters in Psychology of Justice and Deviance. Paula Frango is a psychologist and social worker with a MSc in Education working the Portuguese Government.

Boom Festival is a one-week long biennial festival organized by Good Mood in Idanha-a-Nova, Beira Baixa Region, Portugal. The festival's first edition was in 1997 and since 2010 it is held in the margins of the lake created by the Marechal Carmona Dam, in a piece of land baptized Boomland. Gathering an international crowd that currently ascends to around 40.000 people, from more than 150 countries, "BOOM is a festival dedicated to free spirits from all over the world. It is the gathering of a global psychedelic tribe and of whoever feels the call to join in the celebrations!!" (Boom Festival, 2018).

From an ethnographic perspective Boom is much more than a music festival or a psytrance event. It is a cultural environment, a celebration embedded in rituals, transcendental narratives and performances. Similarly to other such festivals (for e.g. Burning Man, Shambala, etc.), Boom can be considered a transformative festival since it intentionally creates an environment where people are able to experience altered states of

consciousness, natural living and embodied experiences. Several authors pointed out the transcendental aspects of raves and transformational festivals, highlighting their roots in the 60/70's countercultural movements namely in their critics to institutionalized conventions and in the promotion of authenticity, non-ordinary experiences and alternative lifestyles (Zandbergen, 2010; St. Jonh, 2011; Bannerman, 2016). In this sense these scenes are created as alternatives to conventional societal systems and intend to raise awareness and promote self-reflexivity among their visitors. Besides its leisure dimensions, Boom Festival has the general goal of raising awareness and inspire its visitors to intentionally change their lifestyle towards a more meaningful, communitarian, ecological and conscious way of living. Boom has specific characteristics that enhance this transformational character. In this festival it's possible to see strange mixtures of tribal and shamanic narratives and rituals, natural living and advanced technology. Technology and arts are crucial dimensions at Boom, since they allow the creation of transcendental soundscapes and visualsapes that induce, facilitate or maximize altered states of consciousness.

Additionally, Boom Festival promotes a libertarian, and celebratory landscape where people can choose to take drugs and feel free to express themselves in performative ways (by dancing, dressing or not-dressing costumes, sharing their emotions, connecting with the nature, bounding with others). St. John (2011:220) defines Boom "as a context within which reflexive practice, ecstatic experience, and expressive arts have coexisted and coevolved, and as a premiere site for the exploration of altered states of mind, body, and culture in the contemporary; as a Carnival at the crossroads of consciousness exploration". Considering this, Boom has a transformational intention and a transcendental nature that indeed allows their visitors to experience transpersonal, exceptional human experiences and a deep sense of sacredness.

Given our scope, however, it should be acknowledged that the psychedelic atmosphere and technological stimulus could be overwhelming and hyper-stimulant, functioning as catalysts for psychedelic crisis episodes, mainly among festivalgoers using drugs (Ruane, 2017; Carvalho, Sousa, Frango, Dias, Carvalho Rodrigues & Rodrigues, 2015). Because of this, Boom festival promoters have for long assumed a responsible attitude promoting information, care and support to

visitors who choose to enhance their festival experience by using psychoactive drugs of all types, namely psychedelics.

The initiative of offering care services at festivals is obviously not an innovation of Boom or the contemporary transformational festival. Reports of secluded safe areas managed by good-willing volunteers with the intention of supporting those caught off-guard when pursuing an intense experience of a festival date back to Woodstock. In the 60's, when young people began to use psychedelics at concerts and events, emergency medical services were not trained to offer support for non-ordinary states of consciousness. More or less around this period, Stanislav Grof visited the Free Clinic at Haight-Ashbury in S. Francisco and reported that an average of 15 cases per day requesting emergency assistance would be common (Grof, 2008). Because of this need, a number of more spontaneous groups created their own specialized spaces and developed techniques suitable to deal with on-site needs. *The Hog Farmers*, one of the first of these known services (Oak, Holden, Harwood, Gonçalves, Stagni, Móró, Ponté, Carvalho, Nielsen & Mishor, 2015), operated at the 1969 Woodstock Music & Art Fair supporting an universe of nearly half a million participants. They were a hippie commune recruited by organizers to build fire-pits and trails on the festival grounds and provide security through a non-intrusive approach. But when the festival became a free-event, with the perimeter fence cut down by the incoming crowd, The Hog Farmers “valiantly fed, comforted, and looked after a flood of participants, effectively launching one of the first large-scale psychedelic care services (...), finding creative ways to support attendees at the site, which lacked adequate sanitation and medical services” (Oak et al, 2015, p. 20).

Even if with a similar intention, the antipodes of drug checking services seem to have followed their own path relatively independently of psychedelic support. Valente and Martins (2018) gather up the background of these initial services that can also be traced back to North American and European 60's and 70's, where different programs with an academic framing would offer free anonymous analysis services with samples collected mostly at drug counseling centers. Despite their difficulty offering an individual approach, back then these services were apparently running under pretty much the same principles and

methodologies that can still be found today. “These included the voluntary submission of samples, ideally free of charge to guarantee access to all social groups; absence of daily interference from public authorities or law enforcement, anonymous submission of samples to discharge any possibility of legal consequences to service users, and results available to potential drug users, health workers and anyone interested in *the drug problem*, preferably along with information about safer drug use and harm minimization” (Valente & Martins, 2018).

Despite this long history of over 50 decades, these same strategies can still be presented today as quite innovative. We can attribute this to the fact that evidence about these services was rarely ever published. In Portugal, Boom’s innovation also relies in the fact that no other event or urban nightlife scene has ever come even remotely close to that much of a serious compromise in offering responsible integrated care to partygoers. And in what concerns other international examples, albeit the considerable availability of a number of such projects and strategies all over Europe and North America, considerable problems arise from their informal nature alongside with the common disengaged attitude from promoters - a factor that often compromises accessibility and usage of the available services despite projects’ best intentions and conveyance to good practice principles (Ruane, 2017).

In 2002, only one year after Portugal’s decriminalization law applied to the use of all illicit substances and harm reduction was regulated, Boom welcomed it’s first initiative in this field with a booth at Liminal Village offering information about drugs and related risks. In 2006 Boom welcomed for the first time a psychedelic emergency service alongside with a drug checking service. These have been available for every edition since, enabled by partnerships with the Portuguese Government, different NGO’s, EU funded projects, and an university (Carvalho, et al, 2015; Martins, Barratt, Pires, Carvalho, Vilamala, Espinosa & Valente, 2017) - financially wise, however, interventions are almost entirely supported by Boom’s unique and independent production. In 2017 a new NGO born out of Boom was created – *The Kosmicare Association*. Driven by the vision of a world where drugs are used with liberty and wisdom, the Kosmicare Association works to transform nightlife culture through humanistic,

comprehensive and evidence-based policies and interventions that capacitate nightlife governance, offering psychedelic harm reduction, outreach work and drug checking, and promoting information and training and good practice exchange (Kosmicare Association, 2018).

At Boom the Kosmicare Association promotes an array of integrated services that include information and peer-to-peer counseling for around 20.000 visitants who approach the *Drug Checking and Info Hub*, and psychedelic emergency for around 400 cases, with the intention of reducing mental and physical health risks and promote Boom patrons general well-being.

By supporting the foundation of this new independent NGO, the festival wishes that a best-practice model that has for long been implemented and monitored at this unique setting can be transferred to other recreational environments and nightlife space-time scenes. Kosmicare's specific interventions are completed with a number of environmental prevention strategies that have an impact in guests' safety, security and well being. This is a somewhat rare and admirable attitude given the tendency nightlife promoters show of denying drug-related problems and risks such contexts are likely to welcome, specially considering the widely normalized occurrence of illicit drug use in contemporary western societies (Van Havere, Vanderplasschen, Lammertyn, Broekaert & Bellis, 2011; Measham & Moore, 2009; EMCDDA, 2017). This seems to be the case not only in Portugal's growing nightlife and festival economy currently offering over 250 medium to large-scale events/year (Aporfest, 2017), but also a problem that projects in this field struggle to deal with when operating in countries with much more restrictive drug laws (Ruane, 2017). It is also an attitude that allows partygoers to be finally rewarded, by means of health promotion and harm reduction programs, for some of their contribution to nightlife's growing economy.

Overtime, and despite our best efforts, grounding this work in evidence has proven to be an extremely hard endeavor. Contrary to the broader field of psychedelic psychotherapy, the *psychedelic renaissance* (Sessa, 2012) is apparently far from offering a much-needed guidance on evidence-based practice for integrated full-spectrum psychedelic support and harm reduction services in recreational environments like the transformational festival – one of

the most popular contexts for contemporary psychedelic use (Van Havere et al, 2011; Measham & Moore, 2009; EMCDDA, 2017). Almost all we seem to know about how to understand people's needs when facing a challenging experience in such environments, how to best perform and which strategies to choose from is apparently derived, by default, from knowledge gathered from highly controlled settings, extremely pure substances, correct dosages, protocol screening and extensive preparation, top guidance and support, thorough integration (Grof, 2008; Grof & Grof, 1989) and a whole lot of other conditions, none of which are likely to occur in a festival or any other nightlife/recreational environment, as transformative as one may conceive it. This lack of evidence is even more compromising if we consider the unpredictable dynamics of illegal drug markets that affect purity and adulteration, the ever changing trends in user's preferences, and all other set and setting variables that inadvertently contribute to amplify potential problems (Martins et al., 2017; Valente, Pires & Carvalho, 2018; Valente, Carvalho, Pires, Pinto, Barratt & Martins, 2018)

Overtime we have made considerable efforts to adapt to these varying scenarios and keep up with the challenges. Our initial efforts have been published some time ago as a first contribution to describe our services, and characterize our targets and intervention strategies (Carvalho et al, 2015; Martins, Valente & Pires, 2015; Martins et al., 2017; Valente, Pires & Carvalho, 2018; Valente & Martins, 2018; Valente et al. 2018;). These efforts focus in crisis intervention in situations related with recreational drug use, namely psychedelics, and focus in presenting data from drug checking services. The impact of integrated multiple strategies, however, is yet to be studied.

The following section will start by offering a short review on the evolution of the concept commonly understood as the "bad trip" or the psycho-spiritual emergency related with psychedelic use in the context of original transpersonal literature and also in the context of the more recent, research developments. The focus will be on the relation between the psycho-spiritual crisis and challenges for health and mental health. Specific triggers of the psycho-spiritual crisis in transformational festivals such as Boom will also be considered.

Another section will present our understanding of full-spectrum harm

reduction in festivals, followed by a number of guidelines informed by our experience in the field, that will shed light into some of our major learnings so far. We will cover a number of factors likely to influence outcomes of the community-based harm reduction strategy for transformational festivals, focusing dimensions that can be directly addressed by program design, alongside with others of more challenging and unapproachable nature. To close we will discuss implications and limitations of our proposal and obstacles to its broader dissemination, as well as implications of the transpersonal theoretical framing of such interventions.

The *psychedelic-induced psycho-spiritual emergency* – current perspectives about the “bad trip”

Given the adverse drug policies that affected psychedelic research in the western world up until the first signs of the *psychedelic renaissance*, it comes with no surprise that the debate concerning the *bad trip* and the psychedelic emergency has remained captive of the initial founding contributions from transpersonal psychology, with scarce developments to the present. An important achievement would be conquered with APA's DSM-IV edition (DSM-IV, 1994) that came to offer a new diagnostic category to contemplate the *religious or spiritual problem*, bringing considerable change into the approach to religion and spirituality in the clinical diagnosis (Lukoff, 1998). This achievement brought recognition to the forms of distress associated with spiritual practices and experiences that improved the differential diagnosis between religion/spirituality and health/psychopathology, acknowledging cultural diversity and opening alternatives to medicalization and psychiatrization of existential problems (Lukoff, 1998; Prusak, 2016).

More recently, Barrett, Bradstreet, Leoutsakos, Johnson & Griffiths (2016) contributed to the measurement and definition of the *challenging psychedelic experience*. Parting from psilocybin, they recognize that psychedelics used with proper screening, preparation, and support in controlled settings could be considered widely safe and acknowledged all the evidence for mental health benefits currently available from psychedelic science. However, they also

recognized the potential adverse acute symptoms that could raise safety concerns in uncontrolled settings. They identified a profile for this challenging experience from literature, including the presence of fear/panic, paranoia, sadness/depressed mood, anger, and a selection of cognitive (for e.g. confusion, delusions), perceptual (for e.g. illusions) and physiological symptoms (for e.g. increased heart rate)

Overall, these contributions open the way for the debate around some central questions we would like to address further.

How closely should we follow transpersonal psychology's guidance for the psychedelic support that takes place in the transformational festival (as an uncontrolled setting for psychedelic use)?

Grof's guidance for *crisis intervention in situations related with unsupervised use of psychedelics* is widely fed by psychedelic psychotherapy – not by community-based intervention that takes place in naturalistic uncontrolled settings. References to the uncontrolled environment are scarce, very little case illustration is shared, and there is no consideration of any specific implications of widespread psychedelic recreational use (Grof, 2008; Grof & Grof, 1989). It is mentioned that the “difficult LSD experience, unless it results from a gross abuse of the individual, represents an exteriorization of a potentially pathogenic matrix in the subjects' unconscious” (Grof, 2008, p.309). What if we were dealing exclusively with *grossly abusing individuals*? Could we be able to distinguish the *proper* from the *gross* forms of psychedelic use and still find benefits in those episodes?

In our perspective original psychedelic emergency management presents a number of problems. The first problem is the fact that in uncontrolled environments we lack pretty much all conditions that should surround the LSD/psychedelic experience (for e.g. the extensive pre-session preparation, the pharmacologically pure correctly dosed substance; the calm environment and the absence of disturbing external stimuli; the time to adequately integrate the experience, etc.) (Grof, 2008). Quite on the contrary, the conditions that recreational users are faced upon can be utterly contrasting with the ones we

just enumerated. In what concerns the *drug* variables, it is impossible to accurately know what substance triggered the episode and if a psychedelic was at all involved. There is risk of adulteration (Martins et al., 2107), and the person may have ingested a product way different than expected. Lack of knowledge on dosage and overdosing are frequent as well as poly-drug use. Then there's *set* obstacles to consider. There is no information about what to expect, no preparation, no screening, no planning and no prior therapeutic relation established between sitter and guest. There is extremely poor or totally absent self-care – not enough sleep, extreme fatigue, no proper nutrition nor, in many cases, even proper hydration. There is no anticipation that what comes might very well be a painful, scary and disorganizing experience. And finally there's *setting* challenges to consider – probably the most unapproachable ones and, as Grof (2008) himself recognizes, also much more impactful than *drug* dimensions – confusing physical and interpersonal environments with an hectic vibe, hot, crowded and very loud spaces where one finds him/herself surrounded by strangers or is alone among familiar faces. All of these aspects can be found at the transformational festival. Grof (2008) points them out but leaves no answer about how to adjust intervention to such challenges.

While facing this, are we to preserve the spiritual crisis that emerges under such an atmosphere at all costs? The uncontrolled environment complicates distinction between the spiritual emergency and psychosis and raises doubts towards Grof's refusal of any pharmacological disruption of the spiritual emergency potentially arising. If any medications are to be used, Grof (2008) says it should encourage the process by means of additional (even if low) doses of psychedelics or psycho-stimulants, but we have serious doubts concerning the safety of this recommendation in an uncontrolled setting. Even if we benefit from decriminalization laws, there is no current framing for the use of psychedelics or psycho stimulants as therapeutic agents. They are not regulated pharmaceuticals and we don't have access to safe sources or resources and knowledge about how to obtain them. The issues of adulteration and dosage to apply can be raised, once more, even if drug-checking services are available. Given this scenario, and if transpersonal psychology's guidelines were to be strictly followed in the management of the psycho-spiritual crisis, could it be

acceptable to experiment with these methods, in an uncontrolled setting, in the absence of validated protocols? Would it be ethically acceptable to make use of such tools with people commonly reporting poly-drug use, when we have no personal and medical/mental health background information? It is our opinion that scarce and anecdotal evidence can hardly be considered enough for the assumption of such principles in the management of the psychedelic emergency.

Regardless, psychedelic support as we conceive it does its best to accommodate transpersonal psychology's guidance and pursue the highest possible benefit enclosed in the psychedelic emergency as psycho-spiritual emergence, but we miss evidence for this. Our assumption that there are benefits to expect from the psychedelic emergency resulting from *grossly abusing a psychedelic* in an uncontrolled setting, other than the access to the unconscious domains that allow the plunge into the origins of the self and its growth beyond known boundaries, is more likely to be a product of belief than of science.

Despite the limitations in the available evidence we believe there are potential and impactful consequences involved. First of all, the person presenting the episode will live a deep experience of care, support and human connection with an unconditionally accepting stranger in an unexpected environment. This encounter will take place within a broader cultural western framework that generally promotes individualism and indifference. Additionally, and even if relying in anecdotal data, a small follow-up sample reported having changed the relation with psychoactive use, becoming more aware of risks and changing risk behaviors (Carvalho et al, 2015). The same anecdotal data also point out that, following the episode difficult communication patterns with significant others received renewed consideration in the person's life. And sometimes there was an opportunity to integrate traumatic biographic events. All considered, it could be there is transformative potential in the psychedelic emergency that takes place in this setting. However, intervention priorities will necessarily rely more heavily in guaranteeing physical and mental health safety of the vulnerable individual in such an uncontrolled environment, rather than in promoting radical self-transformation.

Given the limitations for transpersonal guidelines applied in the management of

psychedelic emergencies in the transformational festival, are there any opportunities for integration of the two historically incompatible models – conventional psychiatry and transpersonal psychology?

Literature is clearly missing any clear and reliable criteria that can be used to support the decision-making process in crisis management in a naturalistic setting like the transformational festival. So we are faced with considerable problems to distinguish the psycho-spiritual emergence, the psychedelic emergency and the psychiatric diagnosis of psychosis. It's not that those boundaries are not acknowledged - Grof & Grof (1989) clearly state that "episodes of non-ordinary states of consciousness cover a very wide spectrum, from purely spiritual states without any pathological features to conditions that are clearly biological in nature and require medical treatment" and that "there is danger to spiritualizing psychotic states and glorifying pathology or, even worse, overlooking an organic problem" (p. 13). But if Grof's (2008) recommendations were to be followed we would be left without any means to make a decision (in psychedelic emergency services we know nothing about the person's mental health history); or, on the contrary, we would be driven to a much higher proportion of cases requiring sedatives, and referrals and outside evacuations. Overall, in our service these cases usually only sum up to around 6% of our psychedelic support activity - that would not certainly be the case if we handled all the situations that include "lack of insight, paranoid delusion and hallucination, and extravagant forms of behavior" (Grof, 2008, p.310), as potential psychotic situations. In this scenario, we are left with the principle of the risk involved in thwarting the psychedelic experience by administering sedatives and referring to mental wards, without any clear guidance that allows evaluation of more long lasting mental health risks.

It is not that we are refusing to acknowledge transpersonal psychology's principles. We struggle to put them to the best possible use, in search of a caring and safe alternative to mental illness stigma and in search of personal growth opportunities. But far too many challenges arise in the transformational festivals that raise obstacles to such an understanding. For e.g., how can multiple cases involving extreme agitation be handled by a team of ten people? Can staff and

guests – the agitated as well as the others resting in the space – remain safe in the absence of sedative administration? Or, in another example, are we left with enough time to wait for a resolution and for the self-limiting effects of LSD or other psychedelics to wear-off? On site there is no unlimited time to wait for spontaneous resolution. Resources are equally limited and interfere with safety promoting decision-making, because people cannot simply be left on their own once the festival finishes and we cannot risk physical risk for staff or other guests in order to protect the unfold of the psychedelic experience. In this context, administering pharmaceuticals, evacuating to an outside facility, or involving a family-member might make the difference between risk and safety.

Our point is that the discussion between risk of misinterpreting spiritual-development and psychopathology must be surpassed if we want psychedelic support in the transformational festival to be of any use. It is true that not all “unusual states of mind, even those that are dramatic and reach psychotic proportions, are necessarily symptoms of disease in the medical sense (...) and arbitrary products of impaired brain functioning” (Grof & Grof, 1989, p.1). It is also true, however, that the transformational festival is extremely limited in its ability to offer *the right circumstances* to the safest handling of the psychedelic emergency. Here is where we believe a sensible use of medical resources, by medical staff that is also available to acknowledge the principles of minimum interference, is likely to be of help. Here is also the point where we wonder if transpersonal psychology would be up to adjusting its founding principles to accommodate the needs of psychedelic use in these environments.

We have no clear evidence to inform action in psychedelic support, and we are mostly guessing our way around the challenges raised by the use of psychedelics at the transformational festival. Is there any evidence at all that currently supports the interest in promoting these interventions?

In 2015 we published preliminary data about our intervention process, targets, results and impact (Carvalho et al, 2015). That study showed high resolution of crises symptoms measured at admission and at the end of the intervention. Recent research by Carbonaro, Bradstreet, Barrett, MacLean, Jesse,

Johnson & Griffiths (2016) studied the psychologically difficult or challenging experience of psilocybin retrospectively. They found out that even if perceived as one of the most challenging life experiences, with 84% of participants reporting benefits afterwards, some factors were clearly more prominent in determining the experience's negatives like the experience's long duration, dosage, and lack of preparation occurring in uncontrolled environments. High resemblance could be found between the reported bad trip features and our experience of psychedelic emergencies – 11% of the sample presented physical threat to others, and around 3% had been aggressive or violent towards others. It is also reported that regardless psilocybin's very low physiological toxicity, these episodes would sometimes produce acute and, less often, persisting adverse psychological reactions. Ona (2018) reports that the bad trip's set and setting or extra-pharmacological features included using psychedelics, mostly LSD (50%), in outdoors and festivals (30%). The study also reports that 67% was using more than one substance, 25% reported long-term side effects, and 44% reported flashbacks. Carbonaro et al (2016) reported 76% and 65% of their study's participants perceived their experience as turning out more positive due to the physical comfort and safety of the surroundings, and due to the social support and trust for others during the session, respectively. The study clearly shows how uncontrolled settings present increased risk of adverse psychological reactions in the psychedelic experience and encourages an approach that is prepared to recognize the presence of risk factors that increase the likelihood of adverse reactions. Even if indirectly these data can, in our perspective, be called to justify the importance of psychedelic support services, since these are able to offer the setting that helps contain the impact of problems like dosage/duration of the substance/experience, and offer the supporting atmosphere during the experience and afterwards help integrate and deal with potential adverse long-lasting side-effects.

Full-Spectrum harm reduction at the Transformational Festival – best-practice recommendations

Psychedelic Emergency Services are crucial health responses especially in long-lasting recreational environments with significant density of attendees and where illicit drug uses are expected to occur. However, transformational festivals and other nightlife environments face several drug-related risks that can be prevented through an integrated set of community-based responses. In order to actively minimize the risks associated with drug use at these environments it is important, firstly, to consider the profiles and patterns of drug use that emerge in these settings. The profile of the person who uses illicit drugs in nightlife or festival environments is considerably different from the traditional imagery that relates people who use drugs with stigmatization, deviance and addiction. Most of the people who use drugs in recreational environments are socially, culturally and economically well-adjusted persons that integrate the drug use experience as another dimension of their conventional lives. In this context, the drug using behavior does not necessarily negatively impact their ability to function in other daily life areas (Carvalho, 2010, 2015; Cruz & Machado, 2010, Aldridge, Measham & Williams, 2011; Cruz, 2015; Valente, Pires & Carvalho, 2018). Additionally, these “non-problematic” drug use profiles (Cruz & Machado, 2010) are far from framing such behaviors as deviant or risky. They distinguish their drug use patterns from those traditional imageries of problematic and deviant drug users by practicing self-regulation and self-control when using drugs, and choosing the time and space to use specific psychoactive substances (Moore, Measham, Østergaard, Fitzpatrick & Bhardwa, 2011), and sometimes using them heavily in the same episode. Additionally, there is a normalization process (Parker, Aldridge and Measham, 1998; Aldridge, et al, 2011) also taking place. This normalization thesis explains the overall acceptance and cultural accommodation of alcohol and illicit drug use, mainly among young people, and can be seen in the permissiveness and sometimes promotion of alcohol and drug use in recreational settings. However, these “socially integrated” and sporadic drug uses associated to nightlife environments are also related with health and social risks that are important to prevent (Valente, Pires, Carvalho, 2018; Riggs & Sharp, 2018).

In this sense, recreational environments in general and the transformational festival in particular should implement a full spectrum harm

reduction approach that includes combined efforts with safety and medical emergency teams, who are able to provide integrated, rapid and flexible responses to festival attendees, in different stages of their drug use involvement over their festival experience (Munn, Lund, Golby & Turriss, 2016; Riggs & Sharp, 2018). By *full-spectrum harm reduction* we mean to refer to the “inclusion of all of the different substances, all of the different ways of using them, all of the different social, cultural, historical and political implications that surround that practice into one same model that aims to reduce the risks and potential harms of each of the substance or any possible situation that happens” (Youth Rise, 2018). Combined strategies are required to deal with environmental dimensions, illicit market dynamics, as well as with a number of other more individual variables in relation with drug, set and setting.

In our case, we rely on more than ten years of field practice delivering harm reduction and psychedelic emergency services at Boom Festival. Over time considerable innovation took place – for this reason we will focus on experience gathered from the most recent interventions. All together, our years at Boom sum up to attending an estimated crowd of 100.000 Boomers at the *Drugs Info Stand*, conducting an estimated total of 3500 drug checking analysis at the *Drug Checking Services*, and supporting around 1200 cases at the *Psychedelic Emergency Hub*. By sharing these best-practice recommendations we identify two groups of factors – the ones we can benefit from that widely escape our influence and can be considered hard-to-change, and the ones we can more likely influence. In presenting them we will also be pointing out how, at Boom Festival, they are implemented and integrated with each other.

Full-Spectrum harm reduction at the transformational festival - the hard-to-influence dimensions

Legal Framework. Boom Festival’s services in drug-related care are closely related with Portugal’s unique drug laws applicable to use of all substances and harm reduction regulation. In this sense, the legal framework is a most crucial hard-to-influence feature of full-spectrum harm reduction at recreational environments. It is not only responsible for a service’s ability to operate in a

regular licensed way diminishing the stress upon the team that delivers the services, as it also determines the likelihood that guests feel free to look for and effectively use such services for their personal benefit. The challenges prohibitionism raises to harm reduction and psychedelic support services have been discussed by Ruane (2017). She parts from ethnographic fieldwork to compare three distinct legal national contexts in the delivery of psychedelic support. Even if we disagree with some of Ruane's assumptions concerning the impact of accommodating the harm reduction narrative into psychedelic support, it is useful to understand the author's arguments about how prohibitionism affects people in distress and integrated care strategies. Ruane (2017) discusses how adulteration at an event in the UK was hard to confirm due to the unavailability of drug-checking services on site; and she presents another example from the US when a guest in psychedelic support refused to share his experience while under influence, as a defensive response towards fear of negative consequences for using drugs. Drug laws have been changing and improvements can be slowly found that are positively affecting how can harm reduction services be offered all over the world. Boom Festival, however, has for long been benefiting from such a favorable atmosphere. The partnership responsible for promoting psychedelic emergency services has involved the Portuguese National Governmental Agency – SICAD - since 2010. Every edition this same authority issues a permit that allows drug-checking services to operate at the festival. And in the year of 2014 the Agency's higher representative was welcomed as guest lecturer at the Festival's Liminal Village. Boom is also in close cooperation with all legal authorities operating in the field of illicit drug control, but given it takes place in private grounds, boomers are safe from random police harassment inside the perimeter.

Festival's caring atmosphere and promoters' social responsibility towards drug-related problems, safety and well being. We have also previously pointed out to Boom's long involvement and compromise with health promotion and harm reduction strategies. This attitude is not restricted to drug-related risks – it is the consequence of a general caring atmosphere and global concern for safety and security that is expressed in many environmental prevention strategies that can

be found all over the Festival's grounds. Even if a caring attitude and genuine interest in offering the paying guest a nice experience is not uncommon in the transformational festival and overall in nightlife industry, the heavy monetary investment involved in supporting the array of care services for drug-related harms offered at Boom is truly unique. From our experience, after each Boom edition another promoter from festivals all over the world will approach us with the intention of requesting our services. Sometimes this request follows an onsite visit to know our work first hand. However, this interest hasn't materialized in dissemination of our model to other events because those promoters are quickly set-off by the reality of the costs and preparation involved in promoting such highly professionalized interventions. So our experience tells us that, regardless the legal context involved, promoters are usually widely unavailable to consider the benefits that may arise from taking responsibility for drug-related risks at this level of integrated care. Even if this should come up as a natural consequence of promoting recreational environments and acknowledging that some of its profit should be reinvested in promoting guest's safety and well-being. Given the absence of regulations that bring the obligation to offer such integrated services, this is clearly a hard-to-influence scenario.

Full-Spectrum harm reduction at the transformational festival – the intervention design options

Environmental prevention. Integrated harm reduction care does not have the means to guarantee the implementation of environmental prevention measures – this relies obviously more on the promoters' side. These measures include accessibility to free potable water, shade, rest and general support areas, fire control plans, healthy and affordable food options, refrigeration systems from high risk areas/dance floors, attention to irresponsible drinking promotion practices/price policies, among many others. However, the professionals who are involved in designing integrated harm reduction are familiar with the evidence that attests for the benefits of controlling risks approachable by these strategies. It is at our reach to share that evidence with promoters and show the case for all the problems that can be avoided by investing in them. The

availability of such strategies has a significant influence in festivalgoers' behaviors (Carvalho, et al, 2015; EMCDDA, 2018) what increases the benefits that can be drawn from their promotion. At Boom, environmental prevention includes onsite free medical care specialized in mass events available for staff and guests, from pre to post-production; free drinkable water available over a ground of more than 150ha that discharges guests from buying bottled water; social hubs in key-spots offering shade, rest areas and general support; program control to promote a balanced adjustment to the festival's intensity and long days; a state-of-the-art fire prevention plan; among many other safety and well being promotion strategies that pretty much generally guide the decisions taken at the event. With this Boom promoters show a different perspective, in contrast with mainstream nightlife managers that tend to ignore the highly normalized behavior of using substances and taking other *controlled and cultivated risks*, choosing to care for the people. It is also to be noted that over a number of its last editions, Boom is sold out less than an hour after ticket sales open, and before any program is known – this shows how the option for investing in this caring atmosphere is totally independent from profit.

Information about drugs and drug-related risks. The implementation of harm reduction info points to educate festivalgoers for safer drug use patterns can be considered one of the most basic strategies of integrated care. These services are known for providing “sensible drug information” (Blackman, Bradley, Fagg, & Hickmott, 2018) that combines realistic and evidence-based drug education contents with attention to cultural features of the young peoples' lives such as pleasure seeking, adapted language, visual and aesthetic options, etc. The team should privilege an empathic and non-judgmental attitude and, preferably, should be composed by harm reduction professionals and peers in order to balance “harm reduction from above” with “harm reduction from below” narratives (Schipstal, Mishra, Berning & Byrnay, 2016). However, it is important to take into account that this information must be aligned with the festival's atmosphere. At Boom the *Drugs Info Hub* has been promoted in the past with the support of several NGOs and EU Funded projects that have supported the recruitment, training and management of the large team required to deliver this

service during a week of intervention, 24/24h, in close proximity with the festival's core – the Dance Temple. Youth peer workers play a major role in these teams – so it was, for e.g., EU funded PIN's project intention in 2016 to train peers and give them the opportunity to work in a large-scale event as a strategy to consolidate skills they could implement in their own environments in the future (Valente, Pires, Pinto, Barratt & Martins, 2018). The drug risks related informations and services are described at a paper by Valente et al (2018). The combined strategies implemented at Boom's Drug Info Hub attest for the service's huge impact, with a number of contacts that reaches around 20K interactions in a festival with around 40K participants.

Drug Checking Services. Another cornerstone of integrated harm reduction is integrated drug checking services that offer to analyze the content of the drugs circulating in the festival. One of the biggest risks related with drug use is the adulteration of drugs with totally different or potentially dangerous compounds (Martins et al, 2017; Saleemi, Pennybaker, Wooldridge & Johnson, 2017). This phenomenon puts all people who use drugs at risk, even the more knowledgeable users, since uncertainty about the content of drugs has been associated with several deaths and countless emergency situations (Ventura, Noijen, Bucheli, Isvy, Huyck, Valente, ..., Ugarte, 2012). Currently, drug checking is the only community-based tool that, in a wider prohibitionist scenario, is able to monitor the drugs circulating in festival or nightlife scenes, and inform users about the real content of their drugs (Martins, Valente & Pires, 2015). Consequently this results in the potential to prevent and limit a number of health and mental health related problems that result from adulteration and varying purity of illegal psychoactive drugs. Drug checking services are know to be available for anyone interested in having “their drugs chemically analyzed as well as receive advice and counseling” (Ventura et al., 2012, p.12). This is the strategy used at Boom, where an average of 700 people per edition submit samples analyzed by an array of techniques that allow qualitative and quantitative feedback concerning purity and adulteration. Everyday of the festival Boomers can approach the *Drugs Info Point* and freely submit their samples, with results being offered some hours later by a trained staff member

(Martins et al, 2017). This feedback is of high importance, since it is also an opportunity to convey key-harm reduction messages and assess the guests' intention towards use following the information received. Everyday a drug checking results report is issued that can be consulted by key-festival areas (Drugs Info Point, Psychedelic Emergency Service, Boom Medical Team, Festival Production), as well as by anyone who has interest/general public. If needed, the Drug Checking Team is also prepared to issue special alerts when increased risk is spotted. The drug checking services are also available to analyze drug samples collected by Boom Medical Team or Psychedelic Support Services that could be associated with emergency situations.

Very recent research data show that over 94% of people who submitted a substance that turned out different than their expectation reported the intention of not using that product. Even though additional research is required, this is a clear indication of the potential impact of drug checking services in user's behaviors (Valente et al, 2018). This is even more impactful if we consider the majority of the study's participants stated that their initial intention was to share the analyzed substance with friends (ibid.). This calls for considering drug checking impact not only for the person who submits the sample, but also within its peers and social networks (Needle, McCubbin, Wilson, Reineck, Lakar & Mederer, 1986).

Psychedelic Emergency Services. Our previous sections have extensively addressed some of the major definitions and debates that surround classic and current discussions about the difficult psychedelic experience, the psycho-spiritual crisis and the bad trip. We have also already referenced psychedelic support's historical background in festivals and particularly at Boom. In the past this service has also been the subject of evaluation efforts that described the intervention process and offered some feedback into potential results and impacts we achieved with our intervention. That research has been published and can be consulted elsewhere (Carvalho et al., 2015). Over time, and parting from our experience at Boom, we have learned psychedelic emergency services are likely to cover roughly an estimated 1% of all festival attendants. Over time we have also learned that our guests are twice as much male than female – even

if this means a much higher presence of the female drug using public than what can be found at other drug-related interventions and epidemiology, where women usually represent sometimes much under a third of the male user population (EMCDDA, 2016). Progressively we came to be aware that the psychedelic support target is most likely to be aged 19-29 y.o.a, is more likely to be at a big festival for the first time, and is more likely to be experiencing an intense drug-related experience associated with first-time use of a substance. However, some of our most challenging situations took place with cases involving much older and experienced drug users. This is an important fact to consider when we make assumptions about who are the people benefiting from our action, and how can we best be of service to respond to their needs. Even if Kosmicare Psychedelic Emergency at Boom is likely to attend very high numbers of guests (roughly around N=400 guests per edition), the much smaller percentage of high-risk situations involving severe agitation, delusional activity and other risks requiring medical assessment (roughly around n=20 guests per edition) will probably consume a considerable amount of human resources per shift, will occupy the space for a very long period, will circulate over a number of varying intervention areas, among other demanding needs.

Our guest's self-reported drug uses include mostly LSD and MDMA. However, a varying number of up to 20 different substances are overall reported, and it is not uncommon to find episodes where more than 5 different substances of varying pharmacological groups are reported. Additionally, there's adulteration to consider. In some of our past editions a number of very challenging episodes occurred, with long-lasting extreme agitation and aggressiveness, that could not be explained by guest's self-reported drug uses. Those situations, that came to be interpreted as LSD adulteration with new psychoactive substances DOx, could be known and dealt with on site due to the availability of drug-checking services. This calls for attention to the importance of integrated drug-checking and psychedelic emergency services being made available at large-scale transformational festivals like Boom.

Psychedelic Emergency Services are likely to assist not only drug-related episodes, but also a number of different needs and situations. One of those situations is the assistance to psychological emergencies associated with

potential previous mental health problems. These are challenging episodes that call upon an understanding, anticipation and to a certain extent differential diagnosis of what is the type of crisis episode we are dealing with. We know our most frequent scenario is that someone uses a drug and experiences an unexpected effect or a far too intense and long-lasting effect. As people face this outcome they experience fear or panic, their psychological functioning is lowered, and our setting and specialized help might be of use to overcome these responses until effects wear off. Once the episode is finished and the person is stabilized and rested, and if up for it, we can support in integrating what happened. If all these stages can be completed, a new understanding of self, relationships or past experiences that eventually came up, can potentially grow from there. Sometimes a contact can even be established between that surpasses the encounter at the service, and ulterior communication is established with the intention of providing further integration, obtaining information about the episode, referencing to other professionals, etc.

What if someone has a previous vulnerability to mental health that they didn't know about? What if they are experiencing their first psychotic episode, even if they didn't use any drugs? What if they are fully diagnosed patients that intentionally abandoned their medication to enjoy the festival? In these scenarios more challenging unfolding takes place, since difficult decisions must be taken in the team such as administering pharmaceuticals, involving the families, or evacuate to an outside health facility. Very often the information we need to know cannot be obtained on site, because psychedelic emergency support is designed to act in the present moment. It is mostly due to the challenges these decisions involve that we call upon an integration, not only of all harm reduction, medical and social support resources available on site, but also upon the integration of traditionally antagonistic theoretical approaches to the psychedelic emergency, such as conventional psychiatry and transpersonal psychology.

We have so far presented a number of arguments that call for a debate concerning the classical understanding of how should the psychedelic emergency be managed, and to what extent that understanding fails to include

the numerous risk factors involved in an uncontrolled environment such as the transformational festival. The absence of background information on health and mental health, the absence of information concerning the substances used, the unpredictable setting variables, are just a few of the aspects that force us to put the principle of the psychedelic experience preservation in question. In line with this, a final aspect must be mentioned that refers to the situations that challenge the limits between the psychedelic emergency and the medical emergency. Recent data have been made available that attest for psychedelics' historic medical and psychiatric safety (for e.g. Nichols & Grob, 2018; Johansen & Krebs, 2015); however, there is a considerable body of research that also shows evidence of psychedelics' health and mental health risks and dangers (for e.g. Martinotti, Cinosi, Santacroce, Papanti, Pasquini, Mancini, ... & Verrochio, 2017; Krul, Sanou, Swart & Girbes, 2012; Krul, Blankers & Girbes, 2011; Halpern, Moskovich, Avrahami, Bentur, Soffer & Peleg, 2011), especially in uncontrolled environments where aspects such as high temperatures might considerably raise the risk of otherwise generally safe products such as LSD. Our journey assisting people undergoing difficult psychedelic experiences inevitably includes occasions where, under varying circumstances, we have been faced with such challenging situations. Even if the analysis of those cases falls out of our present scope, we wish to share further what our learning has brought us, and how do we inform current decisions whenever we are faced with that difficult distinction. The goal is to increase the early detection and intervention in the dubious psychedelic vs. medical emergencies and ensure maximum attention to physical safety.

Over time we have increased the people in the team that, as volunteer sitters or as hired professionals, have a medical background. Our current team structure counts with 5 doctors, mostly psychiatrists, whose responsibility is to help manage these particular situations. The team doctor is accountable for evaluating guests' mental and physical condition, and to make decisions that aim to preserve their physical integrity. The situations that most frequently required such intervention were those presenting with extreme psychomotor agitation and/or serious risk of self-harm or aggression. In those situations,

pharmaceutical agents, mostly benzodiazepines, have been administered to a proportion of guests that did not exceed 6% of our population. These are the situations where preservation of guests' safety clearly surpasses the psychedelic emergency transformational potential, even if the administration of such sedative drugs is most likely to interrupt the course of the psycho-spiritual emergence.

Other strategies include close communication and cooperation with Boom Medical Services (BMS), guaranteed during all intervention stages. This cooperation is implemented through the assistance that Kosmicare Psychedelic Emergency directly delivers at BMS area, as well as by the presence of BMS at the Kosmicare Psychedelic Emergency area, both upon call. More recently, and with the intention of strengthening the integration of these services while preserving their unique identities, the location of Kosmicare Psychedelic Emergency was moved closer to BMS in order to increase efficacy of coordinated responses. Other recent measures include the creation of two strategically located advanced-posts operating 24/24h with BMS and psychedelic support staff located next to the two main stages at Boom. Finally, an event-control room that aimed to ensure rapid response and assignment of correct resources for every emergency identified in the field was also recently initiated.

Can dissemination of full-spectrum harm-reduction take place? A final discussion.

We called it upon our mission to illustrate in what ways can Boom Festival be taken for example of community-based full-spectrum harm reduction that includes integrated interventions at the numerous levels we offered to describe. By doing so not only do we wish to contribute to clarify what is full-spectrum harm reduction – a new concept that is yet to achieve a clear definition -, as we also wish to motivate the psychedelic community into surpassing its classic debates and contribute to evidence-based interventions aimed at psychedelic emergencies as well as at other drug-related challenges in

recreational environments.

At Boom, and overtime, considerable investment was made and increasing improvement of the services took place – something that is only possible due to the unique commitment of its organizers to guarantee safety, well being and care of Boomers. Because of this, Boom can be considered a living laboratory where new forms of care and innovative harm reduction responses are allowed to flourish and to, increasingly, guarantee the best possible festival experience for its guests. We remain, however, challenged by the fact that transformation cannot truly take place unless considerable dissemination of the experience drawn from examples such as Boom takes place. Some of the factors that allow such dissemination, like legal context and nightlife promoters' awareness, present as hard-to-influence variables. Gathering resources and making informed decisions in what concerns intervention design, on the contrary, can more directly influence a number of other dimensions. The most decisive factor, however, is evidence. There is currently an abundance of harm-reduction and psychedelic support interventions taking place all over the world. In contrast, we are faced with a shortage of published evidence in what concerns those services' activity and the impact of their action. It is important we recognize that conventional academic science on its own, will hardly ever be able to gather the kind of knowledge that is likely to influence legal framing awareness in for the topic among industry promoters and policy-makers, at city or country level. This might be a decisive factor in what concerns balancing a very unfair scenario for the party attending publics, and a purpose that's worth being active for.

References

Aldridge, J., Measham, F. & Williams, L. (2011). *Illegal Leisure Revisited*, Oxford: Routledge.

APPORFEST Associação Portuguesa de Festivais de Música (2018). *Annual Report 2018*. Retrieved from: <http://www.aporfest.pt>

Bannerman, B A. (2016). *Transformative, exceptional human experiences at music festivals: a transpersonal phenomenological exploration*. MSc dissertation, Faculty of Education, University of Lethbridge, Canadá.

Barrett, F. S., Bradstreet, M. P., Leoutsakos, J. M. S., Johnson, M. W., & Griffiths, R. R. (2016). The challenging experience questionnaire: characterization of challenging experiences with psilocybin mushrooms. *Journal of Psychopharmacology*, *30*(12), 1279-1295.

Blackman, S., Bradley, R., Fagg, M. & Hickmott, N. (2018). Towards 'Sensible' drug information: critically exploring drug intersectionalities, 'Just Say No,' normalisation and harm reduction, *Drugs: Education, Prevention and Policy*, *25*:4, 320-328, DOI: 10.1080/09687637.2017.1397100

Boom Festival (2018). Boom Vision. Retrieved from: <https://www.boomfestival.org/boom2018/vision/boom-vision/>

Carbonaro, T. M., Bradstreet, M. P., Barrett, F. S., MacLean, K. A., Jesse, R., Johnson, M. W., & Griffiths, R. R. (2016). Survey study of challenging experiences after ingesting psilocybin mushrooms: Acute and enduring positive and negative consequences. *Journal of Psychopharmacology*, *30*(12), 1268-1278.

Carvalho, M. C., Pinto de Sousa, M., Frango, P., Dias, P., Carvalho, J., Rodrigues, M., & Rodrigues, T. (2014). Crisis intervention related to the use of psychoactive substances in recreational settings-Evaluating the Kosmicare Project at Boom Festival. *Current drug abuse reviews*, *7*(2), 81-100.

Cruz, O. & Machado, C. (2010). Consumo não problemático de "drogas legais". *Revista Toxicodependências*, *16*(2), 39-47

Cruz, O. (2015). "Nonproblematic Illegal Drug Use: Drug Use Management Strategies in a Portuguese Sample." *Journal of Drug Issues* *45* (2) (December 4): 133-150, DOI: doi:10.1177/0022042614559842

DSM-IV (1994). *Statistical Manual of Mental Disorders – DSM IV*. American Psychiatric Association, 535.

EMCDDA European Monitoring Centre for Drugs and Drug Addictions (2016). *European Drug Report – 2016*. Retrieved from:
<http://www.emcdda.europa.eu/edr2016>

EMCDDA European Monitoring Centre for Drugs and Drug Addictions (2017). *European Drug Report – 2017*. Retrieved from:
http://www.emcdda.europa.eu/edr2017_en

EMCDDA European Monitoring Centre for Drugs and Drug Addictions (2018). *European Drug Report – 2018*. Retrieved from:
http://www.emcdda.europa.eu/edr2018_en

Grof, S. & Grof, C. (1989). *Spiritual Emergency – when personal transformation becomes a crisis*. New York: Penguin Putnam.

Grof, S. (2008). *LSD Psychotherapy*. Santa Cruz, CA: Multidisciplinary Association for Psychedelic Studies.

Halpern, P., Moskovich, J., Avrahami, B., Bentur, Y., Soffer, D., & Peleg, K. (2011). Morbidity associated with MDMA (ecstasy) abuse: a survey of emergency department admissions. *Human & experimental toxicology*, 30(4), 259-266.

Johansen, P. O., & Krebs, T. S. (2015). Psychedelics not linked to mental health problems or suicidal behavior: A population study. *Journal of Psychopharmacology*, 29(3), 270–279. DOI:10.1177/0269881114568039

Kosmicare Association (2018). Mission statement. Retrieved from:
www.kosmicare.org

Krul, J., Sanou, B., Swart, E. L., & Girbes, A. R. (2012). Medical care at mass gatherings: emergency medical services at large-scale rave events. *Prehospital and disaster medicine*, 27(1), 71-74.

Krul, J., Blankers, M., & Girbes, A. R. (2011). Substance-related health problems during rave parties in The Netherlands (1997–2008). *PLoS One*, 6(12), e29620.

Lukoff, D. (1998). From Spiritual emergency to spiritual problem: the transpersonal roots of the new DSM IV category. *Journal of Humanistic Psychology*, 38(2), 21-50.

Martinotti, G., Cinosi, E., Santacroce, R., Papanti, D., Pasquini, A., Mancini, V., ... & Verrocchio, M. C. (2017). Substance-related psychopathology and aggressiveness in a nightlife holiday resort: Results from a pilot study in a psychiatric inpatient unit in Ibiza. *Human Psychopharmacology: Clinical and Experimental*, 32(3), e2586.

Martins, D., Barratt, M. J., Pires, C. V., Carvalho, H., Vilamala, M. V., Espinosa, I. F., & Valente, H. (2017). The detection and prevention of unintentional consumption of DOx and 25x-NBOMe at Portugal's Boom Festival. *Human Psychopharmacology: Clinical and Experimental*, 32(3), e2608-n/a. doi:10.1002/hup.2608

Martins, D., Valente, H., & Pires, C. (2015). CHECK! NG: The last frontier for Harm Reduction in party settings. *Saúde e Sociedade*, 24(2), 646-660. DOI: <http://dx.doi.org/10.1590/S0104-12902015000200020>

Measham, F., & Moore, K. (2009). Repertoires of distinction: Exploring patterns of weekend polydrug use within local leisure scenes across the English night time economy. *Criminology & Criminal Justice*, 9(4), 437-464. <http://journals.sagepub.com/doi/abs/10.1177/1748895809343406>

Moore, K., Measham, F., Østergaard, J., et al. (2011). Emerging Drug Trends in Lancashire: Focusing on young adults' alcohol and drug use. Phase Two Report. Retrieved from

http://pure.sfi.dk/ws/files/386799/Emerging_drug_trends_in_Lancashire_Focusing_on_young_adults_alcohol_and_drug_use_phase_2.pdf

Munn, M.B., Lund, A., Golby, R. & Turriss, S. A. (2016). Observed Benefits to On-site Medical Services during an Annual 5-day Electronic Dance Music Event with Harm Reduction Services. *Prehospital and Disaster Medicine*, 31(2), 228-234. DOI: <https://doi.org/10.1017/S1049023X16000054>

Needle, R., McCubbin, H., Wilson, M., Reineck, R., Lazar, A., & Mederer, H. (1986). Interpersonal influences in adolescent drug use—the role of older siblings, parents, and peers. *International Journal of the Addictions*, 21(7), 739-766. DOI: <https://doi.org/10.3109/10826088609027390>

Nichols, D. E., & Grob, C. S. (2018). Is LSD toxic?. *Forensic science international*, 284, 141-145.

Oak, A., Holden, B., Harwood, E., Gonçalves, J., Silenzi, K., Móró, L., Ponté, L., Carvalho, M.C., Nielsen, S. & Mishor, Z. (2015). A History of Psychedelic Care Services. In A. Oak, J. Hanna, Kaya, S. Nielsen, Twilight & Z. Mishor (Eds.), *The Manual of Psychedelic Support*. (Cap. 1). Retrieved from <https://psychsitter.com>

Ona, G. (2018). Inside bad trips: Exploring extra-pharmacological factors. *Journal of Psychedelic Studies*, 1-8.

Parker, H.J., Aldridge, J. & Measham, F., 1998. *Illegal leisure: The normalization of adolescent recreational drug use*, Psychology Press.

Rigg, K. K. & Sharp, A. (2018). Deaths related to MDMA (ecstasy/ Molly): Prevalence, root causes, and harm reduction interventions, *Journal of Substance Use*, DOI: 10.1080/14659891.2018.1436607

Ruane, D. (2017). Harm reduction or psychedelic support? Caring for drug-related crises at transformational festivals. *Weekend Societies: Electronic Dance Music Festivals and Event-Cultures*, 115.

Saleemi, S., Pennybaker, S. J., Wooldridge, M. & Johnson, M. W. (2017). Who is 'Molly'? MDMA adulterants by product name and the impact of harm-reduction services at raves. *Journal of Psychopharmacology*. DOI: 10.1177/026988117715596

Schipstal, I. V, Mishra, S., Berning, M. & Murray, H. (2016). Harm Reduction From Below: On Sharing and Caring in Drug Use. *Contemporary Drug Problems*, 43(3), 199-215. <https://doi.org/10.1177/0091450916663248>

Sessa, B. (2012). *The psychedelic renaissance: Reassessing the role of psychedelic drugs in 21st century psychiatry and society*. London: Muswell Hill Press.

St. John, G. (2011). Spiritual technologies and altering consciousness in Contemporary counterculture. In E. Cardeña & M. Winkelman (Eds.). *Altering consciousness: Multidisciplinary perspectives*. (Vol 1, pp. 203-225). Santa Barbara, CA: ABC- CLIO.

Van Havere, T., Vanderplasschen, W., Lammertyn, J., Broekaert, E., & Bellis, M. (2011). Drug use and nightlife: more than just dance music. *Substance abuse treatment, prevention, and policy*, 6(1), 18. DOI: <https://doi.org/10.1186/1747-597X-6-18>

Valente, H., Carvalho, H., Pires, C.V., Pinto, M., Barratt, M., Martins, D., (2018). Providing integrated drug checking services at large scale festivals: The Boom Festival as analyzer. Manuscript submitted for publication.

Valente, H., Martins, D. (2018). Drug Checking – An approach to chemical anarchy. Manuscript submitted for publication.

Valente, H., Vale Pires, C. Carvalho, H. (2018). Nightlife as an Educational Setting: The Harm Reduction Perspective. In Nofre, J. & Eldridge, A. (Ed.) *Exploring Nightlife: Space, Society and Governance* (pp. 192- 206). London: Rowman & Littlefield International Ltd.

Ventura, M., Noijen, J., Bucheli, A., Isvy, A., Huyck, C. v., Valente, H., . . . Ugarte, M. (2012). *Drug Checking Service: Good Practice Standards*. Retrieved from http://newip.safernightlife.org/pdfs/standards/NEWIP_D_standards-final_20.12-A4.pdf

Youthrise. (2018). Retrieved from <http://youthrise.org/information/full-spectrum-harm-reduction/>

Zandbergen, D. (2010). *New Edge. Technology and Spirituality in the San Francisco Bay Area*. PhD dissertation, Leiden University. Belgium.