

RECREATIONAL PHARMACEUTICAL USE AMONGST PARTY DRUG USERS

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I am talking about recreational pharmaceutical supplement use among party drug users. It is a Commonwealth Funded Study and is currently unpublished. These are preliminary findings so there are a few gaps in this study, which I am sure if people are paying attention they are going to ask me questions about. The number of ecstasy users in Australia is increasing; it has trebled in ten years, and we have a peak user group in the 20–29 year olds, with twenty percent ever having tried in that age group.

We know about the side effects, many of which have already been discussed, and ecstasy users acknowledge that there are negative, psychological and physical effects. We also know that people build up a tolerance to ecstasy very quickly. It is about the most tolerant-building drug there is; after about three doses the empathic effects of ecstasy are lost and there is lots of information to back this up. But what we do know is that, because of tolerance, ecstasy users use more to get the same effect. However, what we know about drug use is that using more drugs to increase the positive benefits does not really work, but rather it tends to increase the negative consequences at a great level.

So to combat side effects we have quite a lot of anecdotal information to suggest that ecstasy users are using a range of pharmaceutical substances and supplements. We have very little good data on this, so this study intended to try and find out what ecstasy users were using, and what the effects were.

Some of the things that I discussed - and you only have to look at Internet chat lines to see these, with examples being Erowid.org, Pillreports.com and Bluelight.nu - were 5THP, the anti-depressants, the SSRIs (Selective Serotonin Reuptake Inhibitors) and MAOIs (monoamine oxidase inhibitors), prescribed stimulants such as dexamphetamine, ritalin and duromine, viagra, and the benzodiazepine class of drugs.

So briefly taking a look at two of those: 5HTP is an interesting one, because you see lots of this on the web; discussions about how good it is and what its effects are. 5HTP is a chemical precursor of serotonin and it can actually be converted to serotonin in the body. However it is not as easy as that and this is something users tend to forget - you cannot just take a bunch of 5HTP before you go out and suddenly serotonin happens. It is quite a complicated process and while websites do explain that, I think a lot of users do not read the fine print. But since ecstasy works by creating a release of serotonin, some people do believe that taking 5HTP with ecstasy, or immediately before, will actually improve the high. There is also the belief about serotonin depletion, which is one of the risks spoken about after taking ecstasy, that 5HTP will help with that.

5HTP has been around for a while now but was introduced after another amino acid, Tryptophan, was removed from the market after a 'bad batch' which was released in Japan caused quite a few problems, and as a result it moved away from the market and 5HTP took over. Now Tryptophan is found in a variety of different foods like

turkey, bananas, milk, cheese and yoghurt, and this is important to remember for the end of this talk. 5HTP is sold in the US; in some States in the US, but not all, you can buy it in health food shops. In Australia it is illegal and lots of it is seized by customs. In fact it is one of the most frequently seized substances, behind some steroid performing enhancing supplements. These are the sorts of Internet sites where you can go (refers to screen), and if you type 5HTP in a Google search you will find hundreds of these all telling you the benefits to 5HTP, and if it could do everything that it says it can do, we should all be taking it.

Anti-depressants: now there are two basic types of anti-depressants, the SSRIs and the MAOIs. The SSRIs are definitely more common and the most well known are Prozac and Zoloft. There has been some research conducted by Pfizer in the UK which says that the use of SSRIs in combination with ecstasy actually reduces the effects of ecstasy, but if you look at some of the research that has been done through MAPS, they actually suggest that it prolonged the effect of the drug, so that is a bit contradictory at the moment. The MAOI anti-depressants are a lot less common because of the risks associated with them. They are not used as much, but definitely in Australia, the big one is Aurorix, which is not strictly an MAOI - I am not a pharmacologist and do not pretend to be, but it is closer to a MAOI than an SSRI. What we know about MAOIs is that if you use them in conjunction with MDMA there is a risk of hypotension and this can be deadly. To show you how clearly we know that, if you go on to sites like Erowid they put very clear messages on such as “do not mix MAOIs with stimulants such as MDMA, this can lead to hypotensive crisis and can be deadly”. They are very clear about how risky this is.

One of the great risks with anti-depressants and MDMA is ‘serotonin syndrome’. The most important thing to remember about serotonin syndrome is that it is a syndrome, and as such it is not really well defined and we do not really know the cause. Basically, it just means that too much serotonin is released when you take different serotonin acting substances and as a result this causes hyperactivation of serotonergic neurons. It is a potentially fatal condition, and in Australia we have had a number of deaths which have been actually recorded as serotonin syndrome – in one very high profile one in Sydney a couple of years ago a young girl died, but it had nothing to do with ecstasy, she took a range of different SSRIs and MAOIs thinking that if one anti-depressant makes you feel good then taking twenty will make you feel fantastic, and unfortunately she died as a result of serotonin syndrome. The interesting thing is, if you look at the actual symptoms and complications of serotonin syndrome then basically they are the same effects you get when taking ecstasy but more extreme. A few months ago when I was working on a medical team I saw a young woman with serotonin syndrome and it was incredibly frightening.

The aims of this study were to look at what drugs were being mixed, what people were hoping to achieve from that mix, what were the consequences, and where were the pharmaceutical drugs and supplements being obtained. We were more interested in the pharmaceutical drugs because we wanted to look at diversion.

So, the results: I have not given any demographics but this was a predominantly male sample which comes from a larger study which I reported yesterday of 216 ecstasy users, looking at where they got their information from. We found out if they also used pharmaceutical drugs or supplements, and if they did we gave them an extra

questionnaire. Out of that 216 there were 60 who used pharmaceuticals, so 28%, and we were a bit surprised about this as we thought it would be a higher number. But 28% of that sample had deliberately mixed ecstasy or other substances (speed, crystal, ketamine, cocaine or GHB) with a pharmaceutical drug or supplement. And for the purposes of the rest of the talk, it was 83% of that group that I am going to be looking at – the ecstasy users who also used pharmaceutical drugs or supplements.

So what were they using it with? Well, number one was benzodiazepines, which is not a surprise. I will explain why they were using them in a moment, but benzodiazepines have often been linked with ecstasy users, after taking a stimulant it is used to help them sleep. Viagra was predominantly reported by the gay sample within our group – 63% of those who had used Viagra in combination with ecstasy were gay men. It was quite worrying that the MAOIs being used were almost exclusively Aurorex. 5HTP was used by just under 10%, and psychostimulants were things like dexamphetamine, Ritalin and duromine.

What were they using it for? Well for viagra, surprise surprise, they were using it to gain an erection, really that was a whopper of a finding. That some people were using it as an aphrodisiac was a bit of a surprise, because I am sure that Pfizer would not necessarily think that is what it is for, but the fact that some people were using it for the stimulant effect is really strange. 5HTP was used to help avoid come down, prevent neurotoxic effects and to increase the strength of the high. And for the other stimulants, it was for increasing the length and strength of the high and the stimulant effect as well. There were some patterns here, we were really seeing people who were either doing it for the high, to increase it and to make it better, or for prevention purposes.

In terms of anti-depressants, once again it is a real mix. The preventing of neurotoxic effects comes from some research conducted a number of years ago which suggested the protective effect of certain anti-depressants on neurons, so it was interesting that a percentage were using it for that. Then there were benzodiazepines, and I am frightened about these last two because if you take an ecstasy and then you take a Normison and you think you are going to get a better high, then that is weird.

We then found out how many of them had their drugs prescribed by a doctor. These were people who were not using them in combination, so of the 260 who just happened to be using pharmaceuticals, and you can see here that there are a lot of this group who were actually on anti-depressants, such as SSRIs, MAOIs, Lithium - pretty heavy drugs some of them, and we need to do a bit more research on that. So going back to that 83%, of that 60%, non-prescribed pharmaceuticals and supplements were obtained from friends, dealers or the Internet. I think that was our greatest surprise, that the Internet was used by so few people to purchase 5HTP.

Most of the people who were purchasing 5HTP were getting it from friends, who must be getting it from somewhere, but we were not finding them. Fifteen percent of pharmaceuticals and supplement users had actually sold their drugs on, and I think that is important. In terms of harm, when we analysed this we found that those who had mixed party drugs with pharmaceuticals were more likely to report experiencing symptoms from ecstasy use, including shortness of breath and headaches; and they

were also the people who were at the greatest risk of overdose. So these people were fairly full-on ecstasy users.

So to finish off, where are we going to go from here? As I said these are preliminary findings, but I think there are some important ones. Definitely, as has been said over and over, ecstasy users know the risks associated with their drugs. What is concerning is that they are continuing to use drugs that are at the high-risk end; SSRIs around serotonin syndrome, but more importantly the MAOIs. And that is pretty scary, that we are still seeing people who are using those drugs when we know that this is the riskiest thing to do.

There are users who mix drugs to help protect themselves from neurotoxic effects, and 5HTP is a great example. But we really need to do research into this to find out if there are any other ways people can protect themselves from neurotoxic effects, and I think a good diet is a good suggestion. When you look at Tryptophan for example, there is one website that puts it really well, “before you go out, have a turkey sandwich and a glass of milk and you are doing about the same thing as a good dose of 5HTP”. Those sorts of messages are very important.

Finally, the sharing of drugs between friends is an issue. We really do need to have an education campaign outlining the risks of using other people’s prescribed drugs. There is a real perception out there that because it is prescribed, it is okay; a pharmaceutical drug is better for you because it is from a doctor. Yet these are often the most risky drugs. Also, doctors definitely need more information around party drug users because if doctors are prescribing these substances, they need to know how drugs like anti-depressants are being used by party drug users, why they are used, and what signs to look for in patients to indicate that the drugs could actually be diverted.

Thank you.