

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

5.1 INTRODUCTION

South Africa is witnessing an escalation in drug use amongst its high school pupils and students of tertiary educational institutions. Adolescents are experimenting more than their predecessors. There are a number of reasons that appear to be contributing factors to the increasing level of drug use in this country. Some reasons have a psychological basis, such as the high stress and anxiety levels of South Africans in general. At present, South Africa is in a transitional phase and adolescents as well as adults are feeling very insecure about the future. Insecurity is going to predispose people towards finding a means of escapism and, unfortunately, drugs provide a very inexpensive and effortless way of doing that. Other reasons are as simple as availability. With the opening of the economic barriers, illegal drugs have flooded the South African market resulting in them being more freely available than they were in the past. Consequently, adolescents are going to be more frequently exposed to drugs.

The attitudes and behaviour of others regarding Ecstasy (MDMA) use are a strong influence on the adolescent's initial use of the substance. Initiation and continuation of use are supported by peer group involvement. Peers also provide role models of MDMA users who maintain they have not experienced negative consequences from their drug use. An important factor in initiating drug use is the degree of access to the substance. The availability of Ecstasy, the prevailing attitudes of significant others and the acceptability of drug use perceived within the adolescent's social network (such as at a Rave) make it easier for him or her to use it (Huggins 1996:539).

Attitudes about drug use have changed among young people and their perception of the risks has diminished, at least in part, as a result of popular media and entertainment portrayals of drugs in an acceptable or even in a positive light. (See Figure 5.1.)



Figure 5.1 Portrayal of drug-use patterns

For many adolescents, smoking, drinking and 'drugging' represent rebellion and maturity. The media contributes to this illusion by linking sophistication with self-destructive, impulsive behaviour and not reasonable, thoughtful behaviour (Pipher 1994:202). The characters with self-control are often portrayed as boring nerds. One need only consider the films *Go*, *Loved up*, *Human Traffic*, *Kids*, *Trainspotting* and *54* (to mention but a few). The 'normalisation' of illegal drugs amongst adolescents appears to be becoming quite the norm, particularly in the Rave, Goth and New Age hippy subcultures.

It is necessary that educators come to terms with the fact that illegal drug use is 'here to stay' for the foreseeable future (irrespective of whether they like the idea or not). The author is not advocating or condoning the experimental use of drugs. However, the reality of the situation is that adolescents are going to do it and that is what educators need to recognise. At this point, there is no effective way of stopping adolescents' exposure to drugs. Currently, there does not seem to be a way of preventing drugs from getting on to the streets, into the clubs, into the shopping malls and into the schools. Hopefully through government policy, drug enforcement and educational strategies, ways of minimising that will eventually be found. However, the urgent question that arises is, what can be done in the meantime?

In this chapter conclusions from the said findings are drawn, recommendations are made and issues requiring further research are considered. The implications of this study for the adolescent, the parent, the teacher, the school and the future are briefly addressed.

5.2 CONCLUSIONS

The following conclusions can be drawn from the findings that emerged from the literature study and the empirical investigation. Not all drug use is pathological and some experimentation is normal. Curiosity and exploration are to be expected during adolescence. Some healthy, reasonably well-adjusted adolescents use drugs. In a Rave environment where young people are continually exposed to drug-related ways of behaviour, for example taking Ecstasy to dance all night or to have a good time, the use of drugs becomes the accepted norm. Using Ecstasy at Raves is widespread and not necessarily a sign of anything except a desire to fit in and do what others do.

It is important to try to understand the context in which drug use occurs. Drug use occurs in young people as a result of complex and interrelated factors. These include peer group pressure, older sibling imitation or 'copycat' behaviour, advertising, boredom, the need to experiment, the expectation that

using will be a beneficial experience which enhances socialisation, positive experiences associated with an altered state of consciousness and the excitement of risk taking (McKeown 1998:01). However, some times drug use is a symptom of other problems. Adolescents go through many developmental changes. Often heavy drug use is a red flag that points to other issues such as despair, social anxiety, problems with friends or family, a lack of support and guidance, pressure to achieve, a low self-image, negative sexual experiences or difficulty finding a positive identity (Pipher 1994:191). Except in extreme cases, it is better to deal with the problems that inspire drug use and the problems that drug use causes.

In any matter concerning drugs it is essential that those helping be properly informed about drugs and their effects on users. Many adolescents who take drugs are far more enlightened about aspects of drug-taking than their parents or teachers, and it simply is not possible to appear credible or even discuss the problem effectively, if your basic facts are inaccurate. Of equal importance is the need for the public as a whole to develop a greater understanding why young people turn to drugs in the first place (Gillis 1994:107). The importance of drug education for educators, adolescents and Ecstasy users cannot be overemphasised. Accordingly, the author sees the function of educators taking on a whole new perspective.

5.2.1 Identification of Ecstasy or drug use in adolescents is imperative

The following are among the reasons why it is necessary to recognise drug use in adolescents:

- Underachievement and deterioration in scholastic performance can be prevented.
- Memory and concentration problems can be avoided.
- Learning problems can be averted.
- Further emotional, social or behavioural difficulties can be prevented.
- Drug-related neuropsychiatric disorders or physiological ailments can be prevented.
- The forming of positive and constructive interpersonal relationships can be fostered.
- General mental health can be promoted.

5.2.2 *Teachers can exert a greater influence on adolescents' mental health*

Because adolescents spend most of their day with their teachers, teachers have a tremendous responsibility with regard to adolescents' future career and life success. The primary duty of teachers is to impart knowledge about certain subjects to their pupils. Their secondary task, which is imposed on them from a psycho-educational perspective, is to accompany adolescents to responsible adulthood and to nurture their mental welfare. This task is often neglected because it is not realised that it is just as important as the first and, consequently, the adolescents concerned contribute in their later life to the low productivity, high absenteeism from work, poor economic conditions and the like that afflict South Africa (Kruger 1992:239).

It seems therefore that it is not only desirable that teachers exert a greater influence on the mental health of adolescents, but that the need to perform this task is likely to assume increasing urgency in the future.

5.2.3 *A disharmonious educational climate must be prevented*

A disharmonious educational climate between parents and adolescents, as well as between teachers and adolescents, is often the cause of stress in both adolescents and their educators. This may result in adolescents making themselves noticeable by engaging in unacceptable activities and behaviour that ultimately undermine their self-concept and self-actualisation. Both groups, but more particularly the educators, since they are responsible for education, should strive to keep relations as amicable as possible. Unrealistic expectations, lovelessness, overprotection, mistrust, lack of self-control, rejection, inconsistency, authoritarianism, permissiveness and a morbidly excessive desire for achievement must therefore be avoided wherever possible (Kruger 1992:239).

5.2.4 *Further research is essential*

The identification of drug use in adolescents is essential, as is further research with a view to providing improved assistance to recognising the symptoms of drug use. Various aspects of the Ecstasy (MDMA) phenomenon should be subjected to thorough scientific investigation. Since recreational drug users are likely to experiment with various 'cocktails' of substances, further research is required to explore the various drug interactions. Follow-up studies of Ecstasy

users should also be carried out in an attempt to assess the long-term implications of Ecstasy.

5.3 *RECOMMENDATIONS*

5.3.1 *Educators should be informed about current drug trends*

Since the need for drug education is gaining importance for the general mental health of the public, it is recommended that educators be equipped with at least a basic knowledge of the current drug trends. Educators do not seem to have an understanding of the current drugs of abuse or the necessary skills to teach those in their care about the dangers of these drugs. By providing drug education and prevention training to teachers, and by exposing them to accurate and current circulars and articles in periodicals published for educators, they can develop an awareness of Rave participation and the escalating drug use and drug trends amongst high school children.

5.3.2 *Documentation*

Adolescents' problems and behaviour, as well as their academic performance, should be documented in a personal pupil file. This information enables the guidance counsellor to compile an accurate personal image of a particular pupil (that is, an accurate description of the adolescent as a person) with the intention of helping her or him. The recorded information can be of great value when adolescents are referred for therapy to a professional person in the school-related services. For example, it would be helpful for a therapist to know from the outset if an adolescent has been experimenting with drugs for some time, or if s/he has been arrested for possession or dealing on school property or at a Rave. Since the guidance counsellor was trusted with the personal troubles of the pupil, it is essential that the information in the files be treated with strict confidentiality. Should it be considered beneficial during counselling to consult with others regarding confidential aspects discussed, permission to do so should first be obtained from the adolescent.

5.3.3 Better rapport between parents and teachers

There has been a growing need for teachers and parents to communicate with each other more often about the welfare of pupils. Parents should have the opportunity to conduct regular interviews with teachers within which specific issues are discussed, namely the adolescent's cognitive, emotional, social, conative and normative development.

5.3.4 Better contact between school-bound and school-related services

Since teachers, besides parents, are the first to notice that adolescents are experiencing emotional and social problems, they should be equipped with knowledge concerning the functions of related occupations, such as those of educational psychologists, clinical psychologists and psychiatrists. Teachers should be furnished with guidelines on how and when a pupil should be referred to one of the said related occupations.

5.3.5 Parent support groups

The organised forming of adult support groups for parents of adolescents is strongly recommended. Other parents can be valuable allies in their efforts to keep their adolescent children drug-free. Parents must get to know the parents of their children's friends and share expectations about behaviour, thereby developing a set of mutually agreed-upon rules about curfews, unsupervised parties and places that are off limits. Helping adolescents stay out of trouble is easier when rules of conduct are clearly known and widely shared (<http://1998:2>).

Sharing experiences can provide insights that help parents deal with their children's behaviour. It also helps them to know that other parents have faced similar situations. Support groups should therefore pursue such goals as:

- providing information about the development of the adolescent by means of discussions, lectures and bibliotherapy
- providing information about the main problems and stressors accompanying adolescence
- offering support to groups of parents whose adolescent children suffer from the same problem, for example, substance abuse, eating disorders and depression.

5.3.6 Parental drug education

As educators, parents need to know about drugs so that they can provide their children with current and correct information. If parents have a working knowledge of common drugs, and know their effects on the mind and body and the symptoms of their use, they can discuss these subjects intelligently with their children. Furthermore, well-informed parents are better able to recognise if a child has symptoms of drug-related problems (<http://1998:03>).

Objectives such as these should be followed through:

- Making parents aware of the dangers of drug use to their children.
 - Heightening parents' awareness of current and emerging drug-use trends.
 - Equipping parents to teach life skills and drug resistance to their children.
- More than simply emphasising the 'say no' message, parents should teach their children how to say no by involving them in discussions about drugs, role-playing, practising resistance and refusal skills, developing assertiveness, strengthening decision-making and problem-solving skills and analysing peer and media influence – with a view to promoting abstinence from substance abuse through the practice of responsible behaviour and informed decisions.



Figure 5.2 Well-informed parents are more credible educators

- Educating and motivating parents to take a proactive role. When parents allow alarm to motivate their behaviour, they tend to react instead of being proactive and they do things that invite their children to have bigger problems. For example, many adolescents whose drug use is problematic choose not to tell their parents for fear of their parents' reaction and resultant rejection. Learning to be proactive instead of reactive is the better approach to the problem of drug abuse.

5.3.7 Adolescent discussion groups

In these groups, any topic regarding the various aspects of adolescence is raised and discussed informally and in depth, within a group context by teenagers under the guidance of a specialist.

5.3.8 Identifying drug use

There are many adolescents who have an initial experience with Ecstasy (MDMA) who do not become repetitive users and many who do become repetitive users do not become dependent. The cause for each stage is different. Different people may be influenced by various situations, producing diverse behavioural effects. The same behaviour may have dissimilar causes in other people. What stimulates or motivates one person to engage in substance use, may not stimulate another. Every person is unique and must be assessed individually (Huggins 1996:539).

Some recommendations towards achieving this end are expressed:

- The unique nature of the individual adolescent and of his attribution of meaning to, experience of, and involvement in drugs must be investigated.
- Identification of drug use must lead to assistance.

Parents should obtain the facts about their adolescent's suspected drug-taking and if they have reason to believe that drugs are being used, they must make their feelings known. The reasons or evidence for their suspicions must be clarified, emphasising that they are broaching the matter, not because they are angry, but because they are concerned and because they care. The underlying message should be that they feel if a problem exists they would like to be brought into the picture, to understand more about it and to help (Gillis 1994:120).

Educators should encourage discussion and be ready to listen but firmly dismiss any attempt to downgrade or confuse the drug issue itself. Most times the initial reaction is one of denial, in which case, if suspicions still continue, it

must be made clear that the matter is certainly far from closed and will be re-examined regularly. If excuses are given, the precise details must be insisted upon and checked. Where friends are involved or blamed, request to meet with them so that the matter can be discussed openly. Furthermore, if an underlying personal problem such as a low self-image is brought up in mitigation, educators should arrange to deal with it separately at a later stage so that the issue of drugs remains central to the present discussion (Gillis 1994:120).

Where it is agreed that a problem does exist, unhelpful reaction in the form of anger or criticism should be avoided. Focus should rather remain on the facts of the present situation and the proposed action to be taken. Gillis (1994:120) asserts that the approach should be supportive but 'tough'. Firstly, in the sense that as a parent your attitude towards drugs is inflexible and, secondly, that *something has to be done*. As a parent you do not want your child to take drugs. However, if you find out that s/he is, you want to have some effect. Clear guidelines and requirements should be set out by parents. If necessary, parents should explain that they have both the responsibility and the authority to enforce them and that they intend to do so (Gillis 1994:120). Guidelines may be incorporated in the form of a written contract, which also stipulates the action (such as loss of certain privileges) to be taken in the event of a breach of contract.

If the drug-taking problem appears to be more serious or is not limited to isolated incidents, assistance should be obtained without delay from a person or organisation with specialised knowledge on the subject. This may be the family doctor, a psychologist, a school counsellor or an organisation concerned specifically with the aspects of drug abuse. (See list of contact numbers.) Should this approach be opposed, parents should consider asking the adolescent to suggest someone of her or his own choice. They should emphasise that treatment would involve being helped to understand and deal with the reason why s/he turned to drugs in the first place and to cope with the associated problems that drug use creates (Gillis 1994:121). Goals of treatment are likely to be the reduction or termination of drug use.

5.3.9 Individual counselling and cognitive/behavioural therapy

Since some adolescents have difficulties with authority figures, a non-judgemental attitude may be helpful in the first counselling session to create a trusting relationship. However, one should bear in mind that Rogerian-style, unconditional positive regard and empathy are typical effects of Ecstasy and it

is reasonable to suppose that some users may sometimes respond better to firm limit setting and reality orientation (Jansen 1997:127).

Denial is an important defence mechanism. The following statement is echoed by many Ecstasy users: 'Everyone knows that E's are not addictive, I can stop anytime I want.' Denial can be dealt with using facts from the person's life rather than from research findings (Jansen 1997:127). Consider this as an example: 'Let us examine the effect that taking eight 'E's' every weekend is having on your studies ... on your finances ... on the way you feel by midweek ... on your life in general now that you have been arrested for possession at a Rave club and charged with intent to supply because you bought a big bag of pills to save money ... on your relationship with a drug runner ... on your increasing tendency to smoke marijuana for the comedown ... on your health ... on your family ...' (adapted from Jansen 1997:127).

This approach may be more effective than discussions about serotonergic terminals in the human brain.

5.3.10 Group counselling and adolescent support groups

The organised forming of support groups for adolescents is strongly recommended, in order to offer support to groups of adolescents suffering from the same problem such as substance abuse. In the give and take of group therapy, adolescents may be able to face the consequences of their psychological dependence on Ecstasy (drugs) and to see new possibilities for coping with it.

5.3.11 Drug education and prevention programmes

Drug education is important. It can save lives and reduce the harm that drugs can cause. However, who actually gives the advice can be crucial on whether it is heard or not. Young people want advice on drugs from people who know what they are talking about. They are more likely to accept advice if it comes from people who have used drugs themselves, people who know what pitfalls to avoid and who will not exaggerate the dangers (Williamson 1997:71). These are the people who should be going around to the schools and youth clubs. Adolescents will listen attentively and talk openly about their experiences when they are confident that they will not get reported for what they have done. There is no point in using figures of authority such as the police and some teachers, as most adolescents will feel inhibited from discussing their drug experiences. Furthermore, those who are most likely to use drugs will

ignore them simply because they are authority figures and because their information is mostly second hand.

5.3.12 Harm-reduction approach

As seen in this study, young people still continue to use Ecstasy (MDMA) despite having some knowledge of the dangers involved. For this reason, a non-judgemental harm-reduction approach appears to be one of the ways forward. According to Cohen, Clements and Kay (in Rosenbaum 1996:15), harm-reduction drug education is secondary rather than primary prevention. It is education about, rather than against, drugs. Such an approach does not preach abstinence, it does not criticise drug users nor does it condone drug use. It nevertheless accepts that drug use does and will continue to occur, and simply presents the facts and advice in a way that young people can relate to. As regards the harm-reduction approach, one is not saying that drugs can be taken safely. There is no 'safe' way to take drugs. All drugs carry some sort of risk, no matter how small it may be. Harm reduction is potentially life-saving information going out to young people. As such, it is 'user education'. (See Appendix 1.)

In the light of this, consider the following example adapted from Williamson (1997:70):

If you are not dancing or you are taking Ecstasy at home, you won't need to drink as much water. There have been a few rare cases of people dying from drinking too much water when they are not dancing. This results in the body retaining excess fluid and the blood becoming diluted, so only drink enough water to quench your thirst and listen to your body.

As mentioned earlier, in Chapter 1, Leah Betts was one of the rare cases in the UK who died from cerebral oedema as a result of drinking too much water because she thought it was the right thing to do when taking Ecstasy. The tragedy of it all is that if she and her friends had been aware of such non-judgemental, factual information, she may have been alive today. Harm reduction is not the same as 'some' harm reduction. One cannot pick and choose which drug users are going to be helped. Harm reduction means reducing as much of the harm associated with all drug use (both legal and illegal) as is humanly possible. This does not just mean advice or education on 'safer' drug practices but also means providing the facilities and support necessary to help all drug users (Williamson 1997:70–73).

A practical approach to drug education includes the teachings of a 'harm-reduction' perspective. Rosenbaum (1996:17) maintains that for various social, cultural and personal reasons, drug use (legal or illegal) will never be eliminated.

Thus educators must assume the existence and use of psychoactive substances, and concentrate on minimising the harmful effects. As Duncan (in Rosenbaum 1996:17) states, this approach may run contrary to that of traditional drug educators:

Many health educators will be uncomfortable with this direction. They may see it as a surrender in the war on drugs. Others will see it as a refocusing of our efforts on what really matters for health education – the prevention of health problems. It is the proper role of health educators to help people live healthier lives and not to act as moral police.

Drug education should be based on realistic premises about drug use. Specific objectives and programmes should consider the fact that people are complicated, human behaviour is constantly changing, and adolescents are intelligent and critical. Programmes must address the needs of individuals within their social context and be as adaptable and open as the young people they need to educate (Rosenbaum 1996:17).

5.4 *IMPLICATIONS OF THIS INVESTIGATION*

5.4.1 *Implications for the adolescent*

The lack of formal scientific research regarding the nature and effects of Ecstasy (MDMA) has given rise to the impression amongst adolescents that Ecstasy is a generally safe or harmless drug. The absence of apparent immediate negative or debilitating effects of Ecstasy combined with the lack of information being taught to students in drug education programmes where other frequently encountered drugs are discussed, may encourage students not to question initial or subsequent use of MDMA (Elk 1996:355). According to Elk (1996:355), by excluding 'full' discussions of MDMA within such programmes, awareness of its potential dangers may be minimised if students view this drug not worthy of discussion or that it is of minimal risk or danger compared with other drugs that are included in the programme.

If anything, the lack of information about the use of MDMA should be portrayed to students as an even greater danger in itself. Although conclusive data remains insufficient, there are some general qualities and possible dangers inherent in using this drug that are suggested by the information gathered in some scientific as well as informal studies and surveys to date. Therefore, including discussion of some of the consistent data gathered thus far can only

help students to become more aware of the dangers of taking Ecstasy and possibly deter their initial or future use of it (Elk 1996:355).

This book lends prominence to the Ecstasy phenomenon and to a realisation of the harmful effects of Ecstasy in all domains of the adolescent's development which may include impaired ability to concentrate, learn and remember with resulting social, economic and personality deterioration as well as possible neurotoxicity such as the degeneration of neurons and the development of age-related cognitive impairment or senility. Awareness amongst parents, teachers and adolescents alike of the dangers of Ecstasy is imperative.

Adolescents must also understand the legal consequences of Ecstasy use in South Africa. With increasing methods of detection such as school drug testing and escalating 'zero tolerance' efforts, drug education must recognise illegality as a risk factor extending well beyond the physical effects of drug use (Rosenbaum 1999:13). There are real, lasting consequences of using drugs and being caught at school, at a Rave or at a club. These include expulsion from school, police arrest, a criminal record for possession of an illegal substance and a long-standing stigma.

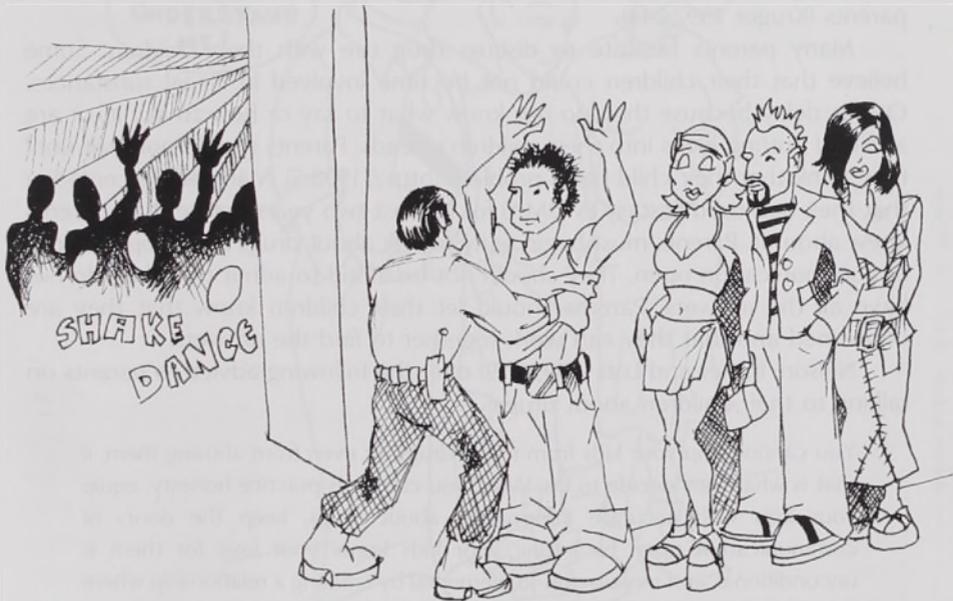


Figure 5.3 Understand the legal consequences of Ecstasy use and methods of detection

5.4.2 Implications for the parents

Every family has expectations of behaviour that are determined by values. Adolescents who decide not to use drugs often make this decision because they have strong beliefs against the use of these substances. These beliefs are based on a value system. Social, family and religious values give young people reasons to say no and help them stick to their decisions (<http://1998:1>). Parents as the primary educators must realise their duty to serve as models representing good values and habits for the benefit of their children. Children learn by example as well as by teaching, thus parents should ensure that their actions reflect the standards of honesty, integrity, responsibility and fairness that are expected of their children.

Parents will have to become increasingly sensitive to the mental welfare and emotional stability of their adolescent children. They will have to ensure that from an early age their children acquire habits that are conducive to a healthy life style where work, rest and recreation are concerned. Parents will also have to ensure that their discipline is appropriate to the developmental level of the adolescent, that the home and the family offer the adolescent a haven of security, and that the child is not unnecessarily burdened with stress owing to the unrealistic expectations, status consciousness or ambitions of his parents (Kruger 1992:244).

Many parents hesitate to discuss drug use with their children. Some believe that their children could not become involved in illegal substances. Others delay because they do not know what to say or how to say it, or are afraid of putting ideas into their children's heads. Parents should not wait until they think that their child has a problem (<http://1998:5>). Many adolescents say that they had used Ecstasy (MDMA) for at least two years before their parents knew about it. Parents must begin early to talk about drugs and keep the lines of communication open. They should not be afraid to admit that they do not have all the answers. Parents should let their children know that they are concerned and that they can work together to find the answers.

Nelson, Intner and Lott (1993:119) offer the following advice to parents on talking to their children about drugs:

You cannot stop your kids from trying drugs, or even from abusing them, if that is what they decide to do. What you can do is practice honesty, equip your kids with accurate information about drugs, keep the doors of communication open by letting your kids know your love for them is unconditional, and remain non-judgemental by creating a relationship where your kids feel safe to talk to you and get your input about their choices. When you abstain from judgements, your children know that if they get into

an abusive situation with their own experimentation, you will be there with honesty, love and support that is empowering instead of disabling.

5.4.3 Implications for the teacher

The teacher will have to assume the responsibility of accompanying the adolescent to a mentally healthy maturity. Teachers will have to familiarise themselves with the signs as well as the consequences and methods of

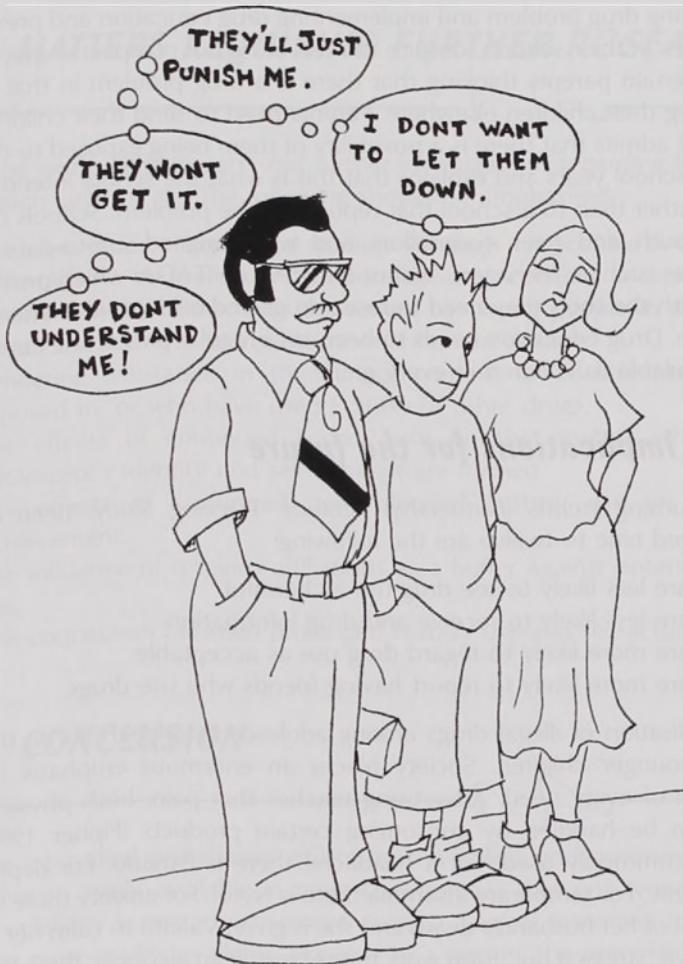


Figure 5.4 Sound adolescent–parent relations are vital

handling drug use and abuse and attempt to incorporate drug education into their subject area. In particular, the teacher as the mentor of the adolescent will have to improve the educational guidance s/he offers the pupils in her/his classes. In addition s/he will have to demonstrate an active interest in the various aspects of her/his pupils' total make-up, including their personality, self-concept, values, interests and abilities.

5.4.4 Implications for the schools

Schools will have to assume the responsibility of being involved in addressing the escalating drug problem and implementing drug education and prevention programmes in their schools, despite the risk of loss of prospective pupils as a result of certain parents thinking that there is a drug problem in that school and sending their children elsewhere. Parents need to send their children to a school that admits that there is a possibility of them being exposed to drugs in their high school years and explains that this is what the school intends to do about it, rather than to a school that repudiates the problem. Schools need to support youth and peer counsellors and well-designed, up-to-date youth programmes such as Teenagers Against Drug Abuse (TADA) which provide the children with the tools they need to resist drugs and offer positive alternatives to drug use. Drug education needs to become a regular part of the curriculum and be available to children in every grade.

5.4.5 Implications for the future

Some disturbing trends (*Partnership Attitude Tracking Study 1999*) among children aged nine to twelve are the following:

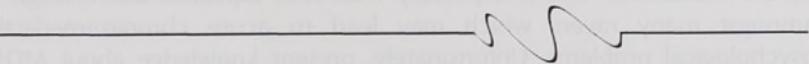
- They are less likely to see drug use as harmful.
- They are less likely to receive anti-drug information.
- They are more likely to regard drug use as acceptable.
- They are more likely to report having friends who use drugs.

The normalisation of illegal drugs among adolescents appears to be trickling down to younger children. Society places an enormous emphasis on the gratification of every need. Advertising teaches that pain, both physical and mental, can be handled by consuming certain products (Pipher 1994:202). Drugs are commonly used. For a headache there is Panado. For depression there is Prozac. For temporary insomnia there is Nytol. For anxiety there is Biral. A wife hears of her husband's death and she is given Valium to calm her down. A man who is 'stressed out' from work pours himself an alcoholic drink to relax. A parent smokes to unwind. One student goes to a Rave and takes Ecstasy as a

stress release while another takes it as a sociability enhancer. Modern-day culture has developed a 'feel good' mentality. Even in the context of schools, today's children have witnessed the 'Ritalinisation' of difficult-to-manage pupils (Rosenbaum 1999:07). In this context, some psychologists argue that experimentation with mind-altering substances, legal or illegal, might instead be defined as normal, given the nature of the present culture (Rosenbaum 1999:7).

With children less resistant to drugs as they enter adolescence, the implications for the future are not encouraging.

5.5 *MATTERS REQUIRING FURTHER RESEARCH*



It may be worthwhile to carry out further investigations regarding MDMA use on a much larger scale. The following should be emphasised:

- The importance of controlled studies. Although it is possible to use Ecstasy (MDMA) in a controlled and responsible way, concern is expressed that the number of Ecstasy pills consumed by young people in some cases greatly exceeds the 'advisable' normal human dosage.
- Rendering assistance in the school context to adolescents who are exposed to, or who have used Ecstasy or other drugs.
- The effects of continued Ecstasy use on the process whereby the adolescent's identity and self-concept are formed.
- The effects of continued or prolonged Ecstasy use on academic achievement.
- The influence of religious affiliations as a buffer against potential Ecstasy use.
- The connection between prolonged Ecstasy use and self-actualisation .

5.6 *CONCLUSION*



Despite intensified prohibition efforts by the police and government, illegal drugs are so easily available in most communities that one wonders if their easy availability is not advertisement enough. Logical reasoning may suggest that the more readily available a drug is to a person, the more likely it is that that person will consume the drug. Similarly, if the drug is not available, then

this is a barrier to consumption (Parker 1995:10). Unfortunately, the increase in different types and use of drugs has not been accompanied by an adequate increase in people's knowledge of these substances. Most people have very little understanding of the potent substances they use for recreational purposes. The media, as well as professionals in the field, often do not adequately contribute to the public's information and have sometimes added to the public's confusion (Beck & Morgan 1986:299).

The occasional media portrayal of Ecstasy as a short-term trend that will soon die out only to be replaced with another is most likely inaccurate. The simple way in which Ecstasy is generally taken and its dual stimulant and emotional effects will continue 'luring' new users. A danger in this regard is there are potentially severe health risks associated with MDMA and probable contra-indications. This is especially true with repeated use of high doses amongst many ravers which may lead to acute chronic medical and psychological problems. Unfortunately, present knowledge about MDMA is quite limited. Most of the available information to date has been acquired through uncontrolled clinical trials and descriptive reports, therefore research is greatly needed to determine the potential benefits and risks of a substance which has established itself in the Rave culture. It is imperative that drug counsellors and educators learn about the different recreational drugs and the unique effects of each drug.

In this book, an effort was made to lend prominence to recreational Ecstasy (MDMA) use in the period of late adolescence including school-going adolescents and university and technikon students. The author is hopeful that this book will make a contribution to the benefit of its area of inquiry, and will create an awareness amongst educators, namely parents, teachers, guidance counsellors and psychologists, of the 'E' in Rave. Nevertheless, mere awareness and identification of Ecstasy use will be meaningless activities unless they lead to prevention and assistance. (See list of relevant contact numbers.)

It is fitting therefore, to conclude this work with the words of Roger Waters (in Granquist 1992:02):

And then the alien anthropologists – Admitted they were still perplexed –
But on eliminating every other reason – For our sad demise – They logged
the only explanation left – This species has amused itself to death.

5.6.1 List of relevant contact numbers

KWAZULU-NATAL

Prevention, training and community development services
(SANCA) (Durban)

Tel: (031) 303-2202 Fax: (031) 303-1938
 e-mail: antidrug@dbn.lia.net

Penthouse Out-patient Clinic (Morningside)
 Tel: (031) 303-2202 Fax: (031) 303-1938

Lulama Treatment Centre (Berea)
 Tel: (031) 202-2241 Fax: (031) 201-4643
 e-mail: lulama@mweb.co.za

Warman House
 Tel: (031) 202-2274 Fax: (031) 201-4643

South African Narcotics Bureau (SANAB)
 Tel: (031) 368-4082

Lifeline 24-hour Emergency Counselling
 Tel: (031) 312-2323

SANCA: Alcohol and Drug Centre (Pietermaritzburg)
 Tel: (033) 345-4173 Fax: (033) 342-4819

SANCA: Zululand Alcohol and Drug Help Centre (Empangeni)
 Tel: (035) 772-3201 Fax: (035) 772-3290

SANCA: Newcastle Alcohol and Drug Centre (Newcastle)
 Tel: (03431) 23-641 Cell tel: 082 7411-729

MPUMALANGA

SANCA: Witbank Alcohol and Drug Help Centre (Witbank)
 Tel: (013) 656-2370/1 Fax: (013) 656-4609
 e-mail: sancawit@mweb.co.za

Lowveld Alcohol and Drug Help Centre (Nelspruit)
 Tel: (013) 752-4376, (013) 755-2710 Fax: (013) 752-5099

GAUTENG

SANCA: Alcohol and Drug Centres
 Tel: (011) 726-4210

Houghton House Recovery Centre
 Tel: (011) 728-0850

Lifeline 24-hour Emergency Counselling
 Tel: (011) 728-1347

Horizon Alcohol and Drug Centre (Boksburg)

Tel: (011) 917-5015/6/7/8

Fax: (011) 917-1106

Phoenix House (Boksburg)

Tel: (011) 892-0875/6/7/8

Fax: (011) 892-0874

SANCA: Alcohol and Drug Centre (Central Rand) (Johannesburg)

Tel: (011) 836-2460

Fax: (011) – 836 2461

Tough Love (Randburg)

Tel: (011) 886-3344

Fax: (011) 886-5775

SANCA: Alcohol and Drug Centre (West Rand)

Tel: (011) 472-7707

Fax: (011) 472-7744

SANCA: Alcohol and Drug Centre (Pretoria)

Tel: (012) 542-1121/2/3/4

Fax: (012) 542-3030

Web page: www.sanca-pta.co.za

e-mail: info@sanca-pta.co.za

SANCA: Alcohol and Drug Centre (Eersterust)

Tel: (012) 806-7535; 806-9991 Fax: (012) 806-6002

Sitara Alcohol and Drug Clinic (Laudium)

Tel: (012) 374-2100; 374-3002

Fax: (012) 374-3942

Vaal Triangle Alcohol and Drug Help Centre (Vanderbijlpark)

Tel: (016) 933 2055

Fax: (016) 981-3559

NORTH WEST

SANCA: (Klerksdorp)

Tel: (018) 464-2008

Fax: (018) 464-4742

Sanpark Community Support Centre (Klerksdorp)

Tel: (018) 462-4568

Fax: (018) 464-4742

Cellular tel: 082 933 1105

e-mail: psycure@lantic.co.za

Aurora Alcohol and Drug Centre (Bloemfontein)

Tel: (051) 447-7271/5; 447-4111

Fax: (051) 447-4225

e-mail: aurorasentrum@xsinet.co.za

FREE STATE

Goldfields Alcohol and Drug Centre (Welkom) (SANCA)

Tel: (057) 352-5444

Fax: (057) 352-3186

Sasolburg Alcohol and Drug Centre (Sasolburg)

Tel: (016) 976-2051

Fax: (016) 976-2051

WESTERN CAPE

Bridges

Tel: (021) 852-6065

Fax: (021) 852-6066

e-mail: sfisher@mweb.co.za

SANCA: Western Cape (Bellville)

Tel: (021) 945-4080/1

Fax: (021) 945-4082

e-mail: sancawc@mweb.co.za

Cape Town Drug Counselling Centre (Observatory)

Tel: (021) 447-8026

Fax: (021) 447-8818

e-mail: ctdcc@iafrica.com

Paarl Alcohol and Drug Centre (Paarl)

Tel: (021) 872-5050

Fax: (021) 872-5050

Helderberg Against Dependence (Somerset West)

Tel: (021) 852-4820

Tygerberg Alcohol and Drug Centre (Stikland)

Tel: (021) 919-9557/8

Fax: (021) 997-383

Mitchells Plain Alcohol and Drug Centre (Mitchells Plain)

Tel: (021) 397-4617

Fax: (021) 397-4617

George Alcohol and Drug Centre (George)

Tel: (044) 884- 0674

Knysna Alcohol and Drug Centre (Knysna)

Tel: (044) 382-5260

Mossel Bay Alcohol and Drug Centre (Hartenbos)

Tel: (0446) 911-463

EASTERN CAPE

SANCA: Central Eastern Cape (East London)

Tel: (043) 722-1210

Fax: (043) 743-6846

Cell tel: 082 2020 191

e-mail: sancaec@iafrica.com

Eureka After Care Home (East London)

Tel: (043) 722-1287

Prevention and Treatment (East London)

Tel: (043) 743-4350/1

Prevention and Treatment (Grahamstown)

Tel: (046) 622-9909

Fax: (046) 622-2580

Prevention and Treatment (Fort Beaufort)

Tel: (046) 645-3187

SANCA: Alcohol and Drug Help Centre (Port Elizabeth)

Tel: (041) 453-6021

Fax: (041) 451-1704

NORTHERN CAPE

SANCA: Northern Cape Alcohol and Drug Centre (Kimberley)

Tel: (053) 831-1699

Fax: (053) 832-5216

APPENDIX I

THE ECSTASY EXPERIENCE

ECSTASY, SORTED AND ON ONE

I held the white small tablet in my hand. I don't know what I had really expected, something bigger perhaps.

'Are you sure, I mean to say, it looks like a Panadol to me?'

'Nah, its about right,' Tony confidently replied.

'Hope so,' I said with adventurous expectation ...

'Come on,' said Tony, 'let's do this proper, I'll get some water to down them with, it takes about half an hour, you know.'...

Armed with our bottles of still, designer mineral water we made our way to a balcony overlooking the main dance floor. There seemed to be as many people there as down below, most of them already drenched in sweat and dancing. I didn't want to sit down or just stand around, I needed to be part of what was going on ...

'Look, I know you don't need any encouragement,' Tony shouted, 'it happens quicker if you dance it in.'

'You what?' I shouted hardly having heard what Tony had said. He repeated himself ... stressing that an invigorated circulation assisted the flow of the chemical in the blood stream.

Maybe, but I had not even swallowed it yet. No point in hanging around though, here goes, I thought, five minutes past midnight, welcome to a glamorous new experience. I put the whole tablet in my mouth, bit it in half and immediately caught an incredibly bitter explosion on my tongue, I instinctively took a mouthful of water and swallowed down. Tony saw me grimace and laughed, 'Don't worry, they're meant to be like that ... you've got to experience everything it's got to offer including the taste!'

Tony downed his pill and we both started dancing furiously. The adrenaline buzz was amazing, every minute I tried to dance faster desperately trying to detect the first noticeable sign that something was working. Everyone

around us was caught up in the music but at the same time there was a great feeling that everyone knew everyone, what I mean is that everyone was smiling and welcoming. I smiled back at everyone, we all cheered together, danced as one, lifted our arms together, we were all friends together. Outside of the club we might have had nothing in common but in there it was pretty obvious straight away that we had a common purpose, to enjoy ourselves and celebrate the incredible music. After about fifteen minutes I told Tony that I thought it was kicking in. 'No,' he said, 'not yet, you'll really know when it does ...'

I reluctantly followed him and we tried to make our way through the frenzied main dance floor, there were people just everywhere dancing fierce and furiously, smiling radiantly and having the time of their lives. I carelessly bumped into a lad ... he turned around, smiled at me and mouthed in a friendly manner words to the effect, 'All right mate?' I smiled back, he shook my hand and said, 'have a nice one' as I went passed him. It was becoming obvious that everyone was here to enjoy themselves and there was nothing that was going to spoil that ...

We decided to go to the toilets to fill up our already depleted water bottles, agreeing that neither of us was going to pay ... for half a litre of water ... We waited for what seemed an age in the crowded but well ordered toilets. Everyone seemed to have the same idea, they were all filling up their water bottles, washing their faces and some of them were pouring bottles of water over their heads. The urinals were all but deserted but there was a huge queue for the cubicles. When eventually one of these opened, two lads came out and another two disappeared in. I just looked at Tony with a bemused look. Tony grinned and explained.

'No, it's not like that, not that there is anything wrong with that, it's not really that type of place, they're just going in to get sorted or to do billy or charlie.'

'What?' I quietly enquired trying not to be overheard or to sound too uncool. Tony explained they were either dealing or sniffing amphetamines or cocaine ...

I wanted to talk to Tony but a wave of nausea swept across me. I didn't feel in control any more, I wanted to get off and felt the room spin just like when I'd had too much to drink. What had I let myself in for? I didn't like it and there was nothing I could do about it. 'Keep in control, keep in control,' I kept repeating to myself as I stood trying not to draw attention to my agony. I'd thought there was nothing that could possibly go wrong and there I was on my first pill and completely out of my depth, I wish that I had not been so stupid, what the hell was I doing playing around with drugs. Somehow I managed to ride the cerebral ferris wheel and stay on. Tony put his hand on my shoulder

and said, 'It'll be all right, it happens to some people but these are really strong though, perhaps we should have just started off with a half.'

Before he had finished talking the ride was over and I felt a huge wave of euphoria coming over me. It was all right. I felt all right, well a lot more than all right, I couldn't express just how all right I felt, I just put my arm around Tony and told him how wonderful I thought he was. He reassuringly patted me back and said, 'Welcome to planet E!'

Planet E, planet E, planet E, if this is what planet E is like, well I think I'll stay here, I thought! It seemed so right, so much fun. I couldn't remember feeling so relaxed and so happy about everything, everything seemed right and okay.

Tony had a huge grin on his face, he leant across and said, 'It's brilliant, just brilliant isn't it! Before we go back dancing though, I know that at the moment you feel that there don't have to be any rules about anything because everything is all right but these are the rules. I should have told you earlier but I think you know most of them anyway. The first is to enjoy yourself. The second is to drink lots of water and the third is to take regular breaks when I tell you to...'

I heard everything he said, I heard it all so clearly whereas before I'd come up on this stuff it was a struggle to hear anything above the beautiful music. Now everything looked and sounded clearer. I took it all in and agreed if he said there had to be rules, well rules there were. Everything was starting to go faster and and get better, 'I've got to go and dance,' I shouted ...

There were people dancing everywhere. In the corridors, by the toilets, by the bars and literally on the tables and chairs. Everyone was weaving to the beat that pounded at 130 to 140 beats per minute. Occasionally the music would stop or slow for five or ten seconds and we were all bathed in a sweeping white light which everyone saluted religiously with their hands in the air, palms outstretched ...

There was no doubt whatsoever, I was having a brilliant time. An absolutely brilliant time. I hadn't felt like this before ... it was hard to describe ... better than scoring that important goal, going out with that special girl. The throbbing beats mesmerised and entranced me. Everyone was my friend and my ego was something which I had happily left at home. There was a young lad dancing furiously in front of me, probably sixteen ... he's got huge, big, black pupils which seem to have outgrown his corneas ... he smiles at me, I smile back and it's as if we've been friends for life, as we both acknowledge through our dancing exactly how wonderful the feeling is.

Tony dragged me off the dance floor after about two minutes, well, it seemed about two minutes but I checked my watch and it was one forty already. We must have been dancing for well over an hour. I was soaking wet and my teeth would not stop grinding .

'Have one of these,' Tony passed me a chewing gum, 'it'll help your jaws.'

We sat down on a slightly raised wall with our feet off the floor. Within a few seconds we were swaying our feet in rhythm with the music. All of my senses of perception were dramatically increased. Everything that caught my attention was the source of an overly inquisitive fascination. I found myself talking about literally everything that came flooding into my head. I probably sounded like a racing commentator but I recognised a child like innocence come flooding back as my barriers dropped and I had an overriding urge to tell the truth about absolutely everything. It was truly amazing and I felt a cleansing tide, as wave after wave of euphoria swept over me. 'Thanks mate,' I said, trying hard to elaborate on my understatement, 'this is the best fun I have had in ages ...'

We filled our water bottles again. I looked at myself in the mirrors and I thought that I looked about ten years younger. Not only did I feel seventeen again, I was convinced that I looked it, my skin was radiant and healthy, my eyes were huge ... We danced for another two or three hours. Gradually I noticed that the effect was wearing off and that the once heaving dance floor was now more sparsely populated ... the music was getting distinctively mellower. Warm and orange is how I think I described it ...

We decided to leave just after five o'clock ... Outside, I'd never seen anywhere so busy at five o'clock. There were people, cars and taxis all over the place. Everybody looked jaded and drained. Girls ... shivered in the crisp morning sun. There was a general air of calm presiding over the sea of sodden shirts and drowned haircuts as groups sat around against the walls chatting, smoking and taking in the early morning breeze which intermittently smelt of cannabis ...

APPENDIX II

DANCESAFE – HARM-REDUCTION INFORMATION

(<http://www.dancesafe.org>) – Harm-reduction information.
Promoting health and safety within the Rave and nightclub community

Watch out for heat-stroke

Over 100 people have died after taking Ecstasy at Rave parties. Why? When you take Ecstasy (or any stimulant drug) your body temperature rises. When you take Ecstasy in a hot place (like a Rave) your body temperature rises even more. When you take Ecstasy in a hot place and start dancing energetically, your temperature rises still more. With body temperatures raised to these very high levels there is a risk of developing heat-stroke.

When your body overheats you lose fluid. Some ravers lose pints and pints of fluid when dancing on 'E' in hot places. At a crowded indoor Rave you could lose up to 6 pints in 6 hours. These fluids must be replaced.

What can you do to prevent heat-stroke?

- 1 As a rough guide, you should be looking to drink about a pint of water every hour (2–4 cups). Sip water slowly rather than drinking a lot all at once, as this can be dangerous.
- 2 Try and eat something salty or drink juice or isotonic sport drinks like Energade. This will replenish your body's electrolytes and prevent hyponatraemia (water toxicity).
- 3 Take breaks from dancing and allow your body to cool down. Chill out areas are perfect for this.
- 4 Wear loose fitting clothes and do not wear a hat. Wearing a hat keeps the heat in.

Warning signs of dehydration and possible heat-stroke

- 1 Failure to sweat.
- 2 Cramps in the legs, arms and back.
- 3 Giddiness, dizziness, headache, fatigue.
- 4 Vomiting.
- 5 Fainting or loss of consciousness.
- 6 Suddenly feeling really tired, irritable and confused.

If any of these things happen, stop dancing, drink some water and chill out immediately.

BUT DO NOT DRINK TOO MUCH WATER.

There have been a few deaths reported from people drinking too much water while at a Rave. This is extremely rare. However, drinking 2 to 4 cups an hour when dancing is about the right amount. You should also try to eat something salty (not always easy if you have taken a stimulant drug) or drink fruit juice or a sports drink. Remember water is an antidote to dehydration NOT Ecstasy.

What if someone collapses while dancing?

- 1 Call an ambulance.
- 2 Get the person to as cool a place as possible. This might mean taking him or her outside.
- 3 Drench him or her with water (as cold as possible) using any means you can. Increase the cooling-down process by fanning the person with anything that is handy. You are looking to get the body temperature down to 38,9 °C or 102 °F. Once the temperature is down to this level the person should be wrapped in a warm dry blanket. The temperature should not be allowed to fall much below 38,9 °C or other serious consequences might develop.
- 4 When the ambulance comes, tell them what the person has taken (if you know) and that you think it is heat-stroke.
- 5 If the person regains consciousness make her or him drink water with some salt in it. Energade or other sports drink are ideal. At this point the person might start sweating again. This is a good sign.
- 6 The person should be taken to the hospital for observation and proper treatment.

BIBLIOGRAPHY

- Allen, R P, McCann, U D and Ricaurte, G A. 1994. Persistent effects of 3,4 methylenedioxyamphetamine (MDMA, Ecstasy) on human sleep. *Sleep*, vol 16(6):560–564.
- Atkins, A D. 1995. *Ecstasy, sorted and on one*. Great Britain: A D Atkins.
- Banich, M T. 1997. *Neuropsychology. The neural bases of mental function*. New York: Houghton Mifflin.
- Battaglia, G, Yeh, S Y and de Souza, E B. 1988. MDMA-induced neurotoxicity: parameters of degeneration and recovery of brain serotonin neurons. *Pharmacology, Biochemistry and Behaviour*, vol 29:269–274.
- Beck, J and Morgan, P. 1986. Designer drug confusion: a focus on MDMA. *Journal of Drug Education*, vol 16(3):287–302.
- Benazzi, I and Mazzoli, M. 1991. Psychiatric illness associated with Ecstasy. *Lancet*, vol 338:1520.
- Bennett, C. 1992. The three R's – Rave, Riot or Religion. Which will they choose? *Youth Specialists Journal*, Winter (4):10–13.
- Brown, E R S, Jarvie, D R and Simpson, D. 1995. Use of drugs at 'Raves'. *Scottish Medical Journal* vol 40:168–171.
- Buffum, J and Moser, C. 1986. MDMA and human sexual functioning. *Journal of Psychoactive Drugs*, vol 18:355–359.
- Cloud, J and Ratnesar, R. 2000. Ecstasy – happiness is ... a pill? The lure of Ecstasy. *Time*, 17 July 2000.
- Cohen, R S. 1995. Subjective reports on the effects of the MDMA ('Ecstasy') experience in humans. *Progress in Neuro-psychopharmacology and Biological Psychiatry*, vol 19(7):1137–1147.
- Collin, M. 1997. *Altered state. The story of Ecstasy culture and acid house*. New York: Serpent's Tail.
- Creighton, F J, Black, D I and Hyde, C E. 1991. Ecstasy psychosis and flashbacks. *British Journal of Psychiatry*, vol 159:713–715.
- Diagnostic and Statistical Manual of Mental Disorders: DSM-IV*. 4th ed. 1994.
- Dowling, G P, McDonough, E T and Bost, R O. 1987. 'Eve' and 'Ecstasy': a report of five deaths associated with the use of of MDEA and MDMA. *Journal of the American Medical Association*, vol 257:1615–1617.
- Doyle, A. 1996. The Rave wave. *Today*, September 1996.

- Eisner, B. 1989. *Ecstasy. The MDMA story*. California: Ronin Publishing Inc.
- Elk, C. 1996. MDMA (Ecstasy): useful information for health professionals involved in drug education programs. *Journal of Drug Education*, vol 26(4):349–356.
- Fahal, I H, Sallomi, D F, Yaqoob, M and Bell, G M. 1992. Acute renal failure after Ecstasy. *British Medical Journal*, vol 305:29.
- Fischer, C, Hatzidimitriou, G, Wios, J, Katz, J and Ricaurte, G. 1995. Reorganization of ascending 5-HT axon rojections in animals previously exposed to the recreational drug 3,4-methylenedioxymethamphetamine (MDMA, Ecstasy). *Journal of Neuroscience*, vol 15(8):5476–5485.
- Gelder, M, Gath, D and Mayou, R. 1995. *Concise Oxford textbook of psychiatry*. Oxford: Oxford University Press.
- Gillis, H. 1994. *Counselling young people. A practical guide for parents, teachers, and those in helping professions*. Pretoria: Kagiso Publishers.
- Glanzrock, P. 1994. Ecstasy: a dose of generation X. *Psychology Today*, vol 27(3):16–17.
- Glass, I B, Farrell, M and Hejek, P. 1991. *The international handbook of addiction behaviour*. London: Routledge.
- Glyptis, N. 2000. The Persecution of God in the West. *QEOS & QRISKEIA*. (God and Religion’.)
- Goode, E. 1993. *Drugs in American society*. New York: McGraw-Hill.
- Gouws, E and Kruger, N. 1996. *The adolescent. An educational perspective*. Johannesburg: Heinemann.
- Greer, G and Tolbert, R. 1986. Subjective reports of the effects of MDMA in a clinical setting. *Journal of Psychoactive Drugs*, vol 18:319–327.
- Griffin, R. 1995. *Return to the source. Deep trance and ritual beats*. (In association with Pyramid Records.)
- Hayner, G N and McKinney, H E. 1986. MDMA: the dark side of Ecstasy. *Journal of Psychoactive Drugs*, vol 18(4):341–347.
- Henderson, S. 1997. *Ecstasy. Case unsolved*. London: Pandora.
- Henry, J A, Jeffreys, K J and Dawling, S. 1992. Toxicity and deaths from 3,4-methylenedioxymethamphetamine (Ecstasy). *Lancet*, 340:384–387.
- Huggins, N D. 1996. Alcohol and drug addictions. In *Women’s medicine*. Ed Blackwell, R E, 538–541.
- ICD-10. *The ICD-10 classification of mental and behavioural disorders: Clinical descriptions and diagnostic guidelines*. 1992. World Health Organization.

- Jansen, K L R. 1997. Adverse psychological effects associated with the use of Ecstasy (MDMA) and their treatment. In *Ecstasy reconsidered*, ed N Saunders, 112–128.
- Jones, C. Safety. 1997. In *Ecstasy reconsidered*, ed N Saunders, 194–209.
- Jonker, K. 1996. The Rave scene in South Africa. South African Police Conference on Ecstasy.
- Kruger, A C M. 1992. Identification of stress in adolescents: a psycho-educational *perspective*. Unpublished DEd thesis. Unisa: Pretoria.
- Malyon, T. 1995. Dancing with death. *New Statesman and Society*, vol 8:24:41.
- Manaster, G J. 1989. Adolescent development: a psychological interpretation. Illinois: F E Peacock Publishers Inc.
- Manning, T. 1996. Meet the E-culturati. *New Statesman and Society*, vol 9:41, February.
- McCann, U D and Ricaurte, G A. 1991. Lasting neuropsychiatric sequelae of 3,4-methylenedioxymethamphetamine (Ecstasy) in recreational users. *Journal of Clinical Psychopharmacology*, vol 11(5):302–305.
- McCann, U D and Ricaurte, G A. 1993. Reinforcing subjective effects of 3,4-methylenedioxymethamphetamine (Ecstasy) may be separable from its neurotoxic actions: clinical evidence. *Journal of Clinical Psychopharmacology*, vol 13(3):214–217.
- McCann, U, Hatzidimitriou, G, Shaham, Y and Ricaurte, G. 1994. Serotonin neurotoxicity after 3,4 methylenedioxymethamphetamine (MDMA, 'Ecstasy'): a controlled study in humans. *Neuropsychopharmacology*, vol 10:129–138.
- McFadyean, M. 1997. *Drugs wise. A practical guide for concerned parents about the use of illegal drugs*. Great Britain: Icon Books.
- McGuire, P and Fahy, T. 1991. Chronic paranoid psychosis after misuse of MDMA (Ecstasy). *British Medical Journal*, vol 302:697.
- McGuire, P and Fahy, T. 1992. Flashbacks following MDMA. *British Journal of Psychiatry*, vol 160:276.
- Nelsen, J, Intner, R and Lott, L. 1993. *Clean and sober parenting*. In *Positive discipline A-Z*. California: Prima Publishing.
- Nichols, D E. 1986. Differences between the mechanisms of action of MDMA, MBDB and the classical hallucinogens. Identification of a new therapeutic class: Entactogens. *Journal of Psychoactive Drugs*, vol 8:305–313.
- Pahnke, W. 1971. The psychedelic mystical experience in the human encounter with death. *Psychedelic Review*, no 11.

- Pennell, M. 1990. New science meets New Age. *International Textiles*, no 716:136.
- Peroutka, S J, Pascoe, N and Faull, K. 1987. Monoamine metabolites in the cerebrospinal fluid of recreational users of 3,4-methylenedioxymethamphetamine (MDMA, 'Ecstasy'). *Research in Community Substance Abuse*, vol 8:125-138.
- Pipher, M. 1994. *Reviving Ophelia. Saving the selves of adolescent girls*. New York: G P Putnam's Sons Publishers.
- Platt, S. 1995. Moral panic. *New Statesman and Society*, vol 8:14-15, November.
- Radford, T. 1998. Ecstasy use may cause brain damage, say scientists. *The Guardian*, 5 December 1998.
- Randall, T. 1992. Ecstasy fueled 'rave' parties become dances of death for English youths. *JAMA*, vol 268:1505-1506.
- RaveSafe. 1997. *Raver's guide*.
- Redhead, S. 1993. *Rave off. Politics and deviance in contemporary youth culture*. England: Avebury.
- Reynolds, S. 1998. *Energy ilash. A journey through rave music and dance culture*. London: Picador.
- Ricaurte, G A, Delaney, L E, Irwin, I and Langston, J W. 1988. Toxic effects of MDMA on central serotonergic neurons in the primate: importance of route and frequency of drug administration, *Brain Research*, vol 446:165-168.
- Riedlinger, J E. 1985. The scheduling of MDMA: a pharmacist's perspective. *Journal of Psychoactive Drugs*, vol 17:167-171.
- Rosenbaum, M. 1996. Kids, drugs and drug education. A harm reduction approach. *National Council on Crime and Delinquency*. San Francisco, California: The Lindesmith Center.
- 1999. *Safety first: a reality approach to teens, drugs and drug education*. United States: America Printing.
- Saunders, N. 1997. *Ecstasy reconsidered*. England: Nicholas Saunders.
- Schifano, F and Magni, G. 1994. MDMA ('Ecstasy') abuse: psychopathological features and craving for chocolate: a case series. *Biological Psychiatry*, vol 36(11):763-767.
- Solowij, N, Hall, W and Lee, N. 1992. Recreational MDMA use in Sydney: a profile of 'Ecstasy' users and their experiences with the drug. *British Journal of Addiction*, vol 87(8):1161-1172.
- Seifert, K L, Hoffnung, R J and Hoffnung, M. 1997. *Lifespan development*. New York: Houghton Mifflin Company.

- The Economist*, 1993. Ecstasy: Market update, vol 32, 13 November, 68.
- The Natal Witness*, 1999. Use of Ecstasy may cause birth defects. 26 October, 9.
- van Aerts, L. 1997. Toxicity. In *Ecstasy reconsidered*, ed N Saunders, 90–111.
- van der Merwe, J. 1998. Personal interview with the author.
- Vollenweider, F X, Gamma, A, Liechti, M and Huber, T. 1998. Psychological and cardiovascular effects and short-term sequelae of MDMA (Ecstasy) in MDMA-naive healthy volunteers. *Neuropsychopharmacology*, vol 19(4):241–251.
- White, J M, Bochner, F and Irvine, R J. 1997. The agony of 'Ecstasy'. How can we avoid more 'Ecstasy' related deaths? *The Medical Journal of Australia*, vol 166:117.
- Williams, H, Meager, D and Galligan, P. 1993 MDMA (Ecstasy). A case of possible drug induced psychosis. *Irish Journal of Psychological Medicine*, vol 162 (43), 44.
- Williamson, K. 1997. *Drugs and the party line*. Great Britain: Rebel Inc.

Internet documents

- Australian Drug Foundation – Jargon.
(<http://www.adf.org.au/drughit/keyterms.html>)
- Barker, J. 1998. The New Age movement.
(<http://www.gospelcom.net/apologeticsindex/all.html>)
- Berko, D. 1998. More than music – lasers, lights and visuals add to overall rave effect.
(<http://www.bouldernews.com/extra/rave/stories/effects.html>), 1
- 1998. Lasers.
(<http://www.bouldernews.com/extra/rave/stories/effects2.html>), 2
- 1998. Intelligent lights.
(<http://www.bouldernews.com/extra/rave/stories/effects3.html>), 3
- Bolla, K I, McCann, U D, and Ricaurte, G A. 1998. Memory Impairment in abstinent MDMA ('Ecstasy') users. *Neurology*.
(http://www.erowid.org/entheogens/mdma/mdma_journal4/mdma_journal4_article1.shtml)
- Brown, J. 1998. The ennui and the Ecstasy.
(http://www.salon.com/ent/feat/1998/09/cov_04feature.html), 1–3
- (http://www.salon.com/ent/feat/1998/09/cov_04feature2.html), 4–6
- (http://www.salon.com/ent/feat/1998/09/cov_04feature3.html), 7–11

- Brown, M and Behlendorf, B. 1995. Techno music and raves frequently asked questions.
(<http://www.hyperreal.org/~mike/pub/altraveFAQ.html>)
- Centre for parent and youth understanding (CPYU). Let's Rave! – Finding love on the dance floor. 1997.
(<http://www.cpyu.org/news/97fallsp2.html>)
- Concar, D. 1997. Blow your mind. *New Scientist*, 08 November.
(<http://www.newscientist.com/ns/971108/necstasy.html>)
- Cramer, J. 1995. Street drug Ecstasy may cause lasting brain damage.
(<http://hopkins.med.jhu.edu/NewsMedia/press/1995/August/19952.htm97>)
- D'Amore, M. 1996. Ecstasy and psychedelic substances: research, intervention and perspectives, Bologna, Italy, 18–19 November 1996. From the *Newsletter of the Multidisciplinary Association for Psychedelic Studies* (MAPS), vol 7 (2), Spring.
(<http://www.maps.org/news-letters/v07n2/072res.html>)
- Davis, E. 1998. Spirituality.
(<http://www.altculture.com/aentries/s/spiritux.html>)
- Davis, E. 1998. Technoshamanism.
(<http://www.altculture.com/aentries/t/technosham.html>)
- Doblin, R. 1994. MDMA neurotoxicity update. New data from Drs Ricaurte and McCann to consider. From the *Newsletter of the Multidisciplinary Association for Psychedelic Studies*, (MAPS), vol 4(3), Winter 1993–1994.
(<http://www.maps.org/news-letters/v04n3/043res.html>)
- Doblin, R. 1995. MDMA neurotoxicity: new data, new risk analysis. From the *Newsletter of the Multidisciplinary Association for Psychedelic Studies*, (MAPS), vol 6 (1), Autumn, 1995.
(<http://www.maps.org/news-letters/v06n1/061res.html>)
- Doblin, R. 1998. Ecstasy on the streets. MAPS study finds lightweight X but no heroin or ground glass. *High Times*.
(<http://www.maps.org/hxstreet.htm>)
- Erowid 2000. MDMA Dosage.
(http://erowid.org/chemicals/mdma_dose.shtml)
- Goodwin, G. 1999. Mysticism.
(<http://www.bodysoulandspirit.net/mystst.htm>)
- Gore, S.M. 1999. Fatal uncertainty: death-rate from use of Ecstasy or heroin. *The Lancet*, 9 October.
(http://www.findarticles.com/cf_0/m0833/9186_354/56218681/p1/article.jhtml)

- Granquist, L. 1992. MDMA Neuropharmacology.
(http://www.erowid.org/entheogens/mdma/mdma_info7.shtml)
- 1995. Neurochemical markers and MDMA neurotoxicity. In the *Newsletter of the Multidisciplinary Association for Psychedelic Studies (MAPS)*, vol 5, Winter 1994–5.
(<http://www.maps.org/news-letters/vo5-ho3/053res.html>)
- Growing up drug free: A parent's guide to prevention. 1998. US Department of Education, Washington, DC.
(<http://www.health.org/govpubs/phd533>)
- Ecstasy in controversy. 1997. *High Times Magazine*.
(<http://www.hightimes.com/ecstasy6.htm>)
- Hoffman, K. (1997). Rave culture – working our nerves.
(<http://cobweb.washcoll.edu/student.pages/Kevin.Hoffman/Rave.html>)
- Hoy, K. 1998. Rave Culture. Generation X papers.
(<http://home.pix.za/gc/gc12/genX/links/Xsub.htm>)
- Jackson, S. 1998. Popular rave drug 'Ecstasy' impairs memory, apparently related to brain damage. *NIDA Media Advisory*.
(<http://www.health.org/pressrel/dec98/9.htm>)
- LaGassa, L. 1995. Peace–love–unity–respect.
(<http://lodge.com/raves/spirit/plur/PLUR.html>)
- Lowe, D. 1996. Responsible raving handbook.
(http://www.hyperreal.org/raves/spirit/caring/Responsible_Raving_Handbook.html)
- Mathias, R. 1996. MDMA like methamphetamine, 'Ecstasy' may cause long-term brain damage.
(http://165.112.78.61/NIDA_Notes/NNVol11N5/Ecstasy.html)
- McCann, U D, Szabo, Z, Scheffel, U, Dannals, R F and Ricaurte, G A. 1998. Positron emission tomographic evidence of toxic effect of MDMA ('Ecstasy') on brain serotonin neurons in human beings. *The Lancet*, October, vol 3 52, no 9 138.
(<http://www.thelancet.com/newlancet/reg/issues/vol1352no9138/body.early1433.html>)
- McCord, R. (1998). Why do we rave?
(http://www.hypereal.org/raves/spirit/vision/Why_Do_We_Rave.html)
- McKenna, T. (1998). Re-evolution.
(<http://www.altculture.com/aentries/m/mckenna.html>)

- McKeown, C. (1998). School drug education: Policy paper for the Australian Professional Society on Alcohol and Other Drugs.
(<http://www.lindesmith.org/library/apsad2.html>)
- Morgan, H. 1997. Rave rationale.
(<http://www.bouldernews.com/extra/rave/stories/collective2.html>), 2
- 1998a. PLUR. Raves are about peace, love, unity, respect and music ... and drugs.
(<http://www.bouldernews.com/extra/rave/stories/plur.html>), 1
- 1998b. The music.
(<http://www.bouldernews.com/extra/rave/stories/plur4.html>), 4
- Morrison, S. 1999. Enlightenment.
(<http://www.internetguides.com/se/dtx/types/mysticalexperience.html>)
- A Novartis Foundation Meeting. 1998. December. 'Ecstasy (MDMA): a human neurotoxin?'
(<http://www.ecstasy.org/info/novartis1.html>)
- A Novartis Foundation Meeting. Press coverage. 'Ecstasy: a human neurotoxin?'
(<http://www.ecstasy.org/novartisarts.html>)
- Parker, H. 1995. Drugs futures: changing patterns of drug use amongst English youth. *Institute for the Study of Drug Dependency*.
(<http://www.druglibrary.org.schaffer/kids/demos/demosr.htm>)
- Partnership Attitude tracking study. 1999.
(<http://www.usdoj.gov/dea/demand/annualreport/99annualreport.htm>)
- Peace—love—unity—respect. 1996.
(<http://www.1clark.edu/~soan314/rave-plur.html>)
- Podraza, J. 1999. MDMA (Ecstasy): does it play a causal role in nephropathy? A review.
(<http://www.maps.org/research/mdma/podraza.html>)
- Pynchon, T. 1995. MDMA and related compounds.
(<http://hypereal.com/drugs/mdma>)
- Raford, N. 1995. Unity.
(http://www.hypereal.org/raves/spirit/Unity_Instinct_Grooves.html)
- Rave and dance culture. 1998.
(<http://www.hypereal.org/ravecult/rave.html>)
- Recent research on Ecstasy, *RaveSafe*. October 1998.
(http://www.ravesafe.org.za/e-research_oct98.htm)
- Short-term effects of MDMA, *Rave Safe*. November 1998.
(http://www.ravesafe.org.za/e-research_uglh_nov98.htm)

- Ricaurte, G. 1997. Long-term effects of 3,4 methylenedioxymethamphetamine (MDMA, 'Ecstasy') on brain serotonin nerve cells in animals and humans. *Addictions Research Journal*.
(http://www.addictions.com/Addictions_1997_Article4.htm)
- Revill, J. 1998. Warning: 'Ecstasy users risk memory loss and depression'. *London Evening Standard*, 04 December 1998.
(<http://www.ecstasy.org/novartisarts.html>)
- Saunders, N. 1995. Rave as religion.
(<http://www.ecstasy.org/rave/religion.html>)
- Saunders, N. 1993. MDMA – the view from England. From the *Newsletter of the Multidisciplinary Association for Psychedelic Studies (MAPS)*, vol 4 (1), Spring.
(<http://www.maps.org/news-letters/vo1n4/res.html>)
- Sewell, A. 1996. Why enter the Rave scene?
(<http://www.bristol-rave.org/umr-faq/rave.html>)
- Slick, M J. 1998. What is the New Age movement? Christian Apologetics and Research Ministry.
(<http://www.carm.org/index.html>)
- Stiens, E. 1997. On peace, love, dancing and drugs. A sociological analysis of rave culture.
— (<http://www.macalester.edu/~estiens/writings/ravepreface.html>), 1
— (<http://www.macalester.edu/~estiens/writings/rave0body.html>), 2–3
— (<http://www.macalester.edu/~estiens/writings/rave2body.html>), 8–10
— (<http://www.macalester.edu/~estiens/writings/rave3body.html>), 12–13
— (<http://www.macalester.edu/~estiens/writings/rave4body.html>), 15–17
— (<http://www.macalester.edu/~estiens/writings/rave5body.html>), 19–20

CD-ROM sources

- Singer, G G and Brenner, B M. 1999. Fluid and electrolyte disturbances. Chapter 49:1–17. *Harrison's principles of internal medicine*, 14th ed.
- Harrison's 14 CD-ROM Version 1.1. Copyright 1998 by The McGraw-Hill Companies.

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Ecstasy ('E') – the popular Rave scene drug – is widely regarded as the 'friendly, happy' drug. In South Africa, up to 12 000 people ingest it weekly. To date, little research has been done about how Ecstasy is used and the nature of its effects.

THE 'E' IN RAVE presents thorough research, drawn from local and international findings, on the complex web of adverse side-effects caused by a death dance drug which cannot be regarded as harmless in any terms.

The psychological and physiological effects of 'E' are investigated.

Raves and their culture are also analysed in depth. This is a key to understanding 'E' usage, since the Rave scene is symptomatic of the growing hunger among young people for relational connections and spiritual direction.



Zervogiannis adopts a practical stance. She gives comprehensive information on harm-reduction drug education, and suggests proactive and supportive measures and intervention programmes.

THE 'E' IN RAVE contains a wealth of information about Ecstasy for educators (including parents), drug users, therapists, health workers and the general public, so that people can be better equipped to manage the risks associated with using the drug.

Fanitsa H Zervogiannis is an educational and counselling psychologist in private practice. As a former secondary school teacher, she realised educators' need for accurate information to assist young drug users.



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