

## DRUG-FACILITATED SEXUAL ASSAULT: COGNITIVE APPROACHES TO TREATING THE TRAUMA

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**Abstract.** This paper summarizes the best available information on the nature and prevalence of drug-facilitated sexual assault (DFSA) in the UK. Characteristics of the assault itself and the drugs used are described. The minimal available data on the psychological consequences of DFSA are considered. Our clinical experience suggests that DFSA has some psychological consequences that are distinct from those seen in sexual assault without drug involvement. The survivor's response to a fragmented or absent traumatic memory appears important. We suspect that specific characteristics of the assault (for example, obvious premeditation) may affect adjustment. Also, the involvement of alcohol, drugs and an incomplete memory in the survivor's account may affect the levels of validation and social support received. We review the model of post-trauma reactions that seems most useful in treating the consequences of DFSA and suggest additional treatment strategies that address the specific nature of this trauma.

*Keywords:* Post-traumatic stress disorder, drugs, rape, CBT, memory.

### **Nature of drug-facilitated sexual assault**

Recent media reports suggest that rates of drug-facilitated sexual assault (DFSA) are rising in the UK (Carrell, 2001). We define DFSA as a sexual assault that is facilitated by the victim being rendered incapacitated or unable to consent by drugs (including alcohol). Numerous studies describe the acute and long-term psychological consequences of sexual assault, which may include post-traumatic stress disorder, anxiety, depression, suicidal ideation and attempts, somatic symptoms, relationship disturbance, sexual difficulties, and substance misuse (Steketee & Foa, 1987). There is, however, little known about the psychological consequences of DFSA. It might be the case that the psychological sequelae of DFSA differ from those seen after other types of rape and sexual assault due to the marked memory loss and distortion associated with the former. This paper aims to summarize key characteristics of DFSA and to recommend cognitive strategies for treatment of this trauma.

### *Prevalence*

The prevalence of DFSA is unknown. Sexual assault in general is under-reported due to survivors' fears of being blamed or disbelieved (Lees, 1996). It is likely that the absence of accurate recall and confusion associated with DFSA may further discourage reporting the offence. The Drug Rape Trust (DRT), a support and campaigning organization, reports that

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1229 survivors contacted them in the year 2001, a 64% increase from the year 2000. It is impossible to know to what extent this rise can be ascribed to an increase in levels of DFSA and/or increased reporting. Stereotypes of DFSA suggest that this is an offence perpetrated mainly against young women such as students. However, 42% of complainants to the DRT were in their thirties and 11% were men.

### *Drugs*

Drugs such as gamma-hydroxybutyrate (GHB), ketamine and benzodiazepines such as flunitrazepam (Rohyppnol or “roofie”) have all been implicated in DFSA (DTB, 2002; Petrak & Hedge, 2002). Although the media has frequently associated the Rohyppnol with DFSA, to date it has never been detected in a UK sample (Sturman, 2000). These substances are colourless, dissolve in alcohol or water, and are most often placed in drinks in social situations. They rapidly produce disorientation, muscle relaxation, emotional blunting and anterograde amnesia for events occurring under the influence of the drug (Smith, 1999). Amnesia for events can be total or partial. GHB, ketamine and flunitrazepam all start to act from 15 to 30 minutes after administration (Smith, 1999). The effects of benzodiazepines on memory have been studied most closely. A range of these agents has been shown to produce dose-dependent levels of anterograde amnesia when administered orally (e.g. diazepam, flunitrazepam and lorazepam – McKay & Dundee, 1980). Both recognition and recall tasks are impaired after benzodiazepine administration, implying that explicit memories are not being encoded during the amnesic period rather than that the memories being recorded are hard to retrieve (McKay & Dundee, 1980). This fact will later be shown to have clinical significance. The agents described above are often administered in conjunction with alcohol, which in most cases enhances their effect (Bond & Lader, 1996; Smith, 1999). Alcohol also causes anterograde amnesia for explicit memories, but there is evidence that implicit memories can still be encoded (Lister, Gorenstein, Risher-Flowers, Weingartner, & Eckardt, 1991). Some studies have also found implicit memory to be relatively spared after acute benzodiazepine administration, though results are somewhat mixed and may vary by the specific agent used (Buffet-Jerott, Stewart, & Teehan, 1998). Thus, survivors may have some form of memory of the event in the absence of explicit recall.

In contrast to amnesia, some survivors report being aware of what was happening but unable to resist. Further, some report that they “consented” to acts that they would usually regard as abhorrent. Both GHB and Midazolam (a benzodiazepine) have been anecdotally associated with increases in sexual fantasy and libido (Smith, 1999), GHB being available in some sex shops. Although there is an apparent increase in the use of the agents described above, it would be inappropriate to ignore the role of alcohol in DFSA. An American study of 1179 women reporting sexual assault showed that 41% had raised levels of alcohol alone in their urine. In contrast, 8% of samples showed evidence of benzodiazepines and 4% were positive for GHB (ELSohly & Salamone, 1999). Although these figures will to an extent reflect the rate at which the various drugs are metabolized, they support the claim that alcohol is the primary drug associated with DFSA (Sturman, 2000).

### *Characteristics of the assault*

Only one survey exists on the characteristics of DFSA in the UK. Sturman (2000) carried out a questionnaire survey of 123 women who reported DFSA. In this sample, drugs were

administered in alcohol (54%) and tea, coffees, hot chocolate and soft drinks (30%, Sturman, 2000). In some cases, they were forced down the survivor's throat or injected (9%). Drugging took place most frequently in clubs and pubs (47%), with a significant proportion also occurring in the survivor's home (12%) or on University campuses (10%). Assailants were usually friends, work colleagues or fellow students (overall, 57%). Strangers or individuals met for the first time were far less common (19%). Apart from these data, little is known about the perpetrators of DFSA. However, some assailants operate in groups and there have also been reports of assaults being filmed to be sold later as pornography (Hall, 2000). Assailants may give survivors recreational drugs both prior to, and after administering the "date rape drug". This can serve to discourage survivors from reporting the assault, as both consenting to recreational drug use and toxicological evidence of such activity can devalue the survivor's testimony (Sturman, 2000). An individual's distress and confusion following the assault can lead to a delay in reporting the offence, by which time drugs such as GHB can have been fully excreted from the survivor's body (GHB is "virtually undetectable" in urine after 12 hours – Smith, 1999, p. 522).

### *Presenting issues in DFSA*

Post-Traumatic Stress Disorder (PTSD) or Acute Stress Disorder (ASD) have been shown to be almost ubiquitous immediately following sexual assault (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). These disorders persist as PTSD in a significant proportion of survivors (Petra & Campbell, 1999; Rothbaum et al., 1992). However, only one study is available on the psychological consequences of DFSA. Russell and Curran (2002) surveyed a volunteer sample of 29 female survivors of DFSA recruited from Victim Support, Rape Crisis and the Drug Rape Trust. Twenty-six of their sample of 29 women (90%) reported "moderate" to "severe" PTSD symptoms on the Posttraumatic Stress Diagnostic Scale (Foa, Cashman, Jaycox, & Perry, 1997). However, this self-selected sample cannot be considered representative of the population of DFSA survivors. Russell and Curran's (2002) study also noted that the involvement of drugs could introduce specific clinical problems. Drugs can partially or totally eliminate the memory of the assault. They can also blunt an individual's emotional response during trauma. Nonetheless, Russell and Curran's (2002) research suggests that survivors of DFSA can experience the intrusion, numbing and arousal symptoms that are characteristic of PTSD at clinical levels of intensity with only minimal memory of the assault (for details of intrusions without traumatic memory, see below). Full DSM-IV (APA, 1994) criteria for PTSD can be fulfilled even when a survivor is entirely amnesic for the trauma; criterion A only requires that an individual should experience intense fear, helplessness or horror when "confronted" with a traumatic event, even if they did not experience or witness it. Thus, it is both clinically and medico-legally essential to recognize that the PTSD caused by DFSA is not necessarily less severe when a dampened peritraumatic emotional response or fragmented trauma memory are present. This has already been recognized in the head-injury literature, where it is accepted that PTSD can exist where a person has complete post-traumatic amnesia for the event that caused the injury (Feinstein, Hershkop, Ouchterlony, Jardine, & McCullagh, 2002; Turnbull, Campbell, & Swann, 2001).

Sexual assault is clearly unlike other traumas that can cause PTSD (e.g. road traffic accidents). It is widely recognized that sexual assault is associated with a range of additional responses, such as feeling dirty and sexual dysfunction (Doyle & Thornton, 2002). Our clinical

practice indicates that such responses are shared by survivors of both drug-assisted and non drug-assisted sexual assault. However, clinical experience also suggests that the involvement of drugs can introduce significant differences to a survivor's memory of the assault, the assault itself, and others' reactions to it. It should be noted that the following observations are largely derived from our practice in an Inner London sexual assault service. As such, they are anecdotal and should in time be superseded by research findings.

### Specific issues seen in clinical practice

#### *Memory*

As noted above, individuals who have been drugged may have memories that are fragmented and lacking in emotional vividness. Survivors may not know the correct order of the fragments and often discover retrospectively that there were substantial periods of complete amnesia. Survivors with PTSD may experience intrusions of the memories that they do recall, or may have surges of emotion in response to certain cues (e.g. a smell) that are not accompanied by a specific memory ("affect without recollection" – King, 2001). One survivor experienced intrusions of the feeling of hair on her face, and overwhelming distress associated with a specific smell. She had no other conscious memories of the assault. Individuals may also experience intrusions of events after the assault. This is highlighted by our experience of a recent clinical case, in which a woman caught a glimpse of videotape of her own assault (which she could not recall) that subsequently became an intrusive image.

Survivors can be intimidated by the presence of partial or total amnesia. Some conclude that they have "repressed" the memory and worry that something particularly awful must have occurred to trigger this mechanism. Most survivors are deeply concerned about what happened in the "lost" periods. Some fear that they may have become disinhibited through the effects of the drugs and may have invited or welcomed the assault. Many dwell on catastrophic scenarios or construct imagined accounts of events in the amnesic periods. In our experience, the majority of survivors wish to recall what happened in the amnesic periods. They often state that they need to know so that they can "move on" and fully process the event. This strong desire to recall can lead to ruminative "replaying" of memory fragments in an attempt to fill the gaps. Some survivors have sought hypnosis in an attempt to retrieve memories that they believe to be repressed. Attempts at retrieval can also represent an attempt to stave off an imagined future in which the memories come "flooding back". Whilst there is often fear about what occurred in the amnesic periods, survivors would usually prefer to remember – "I would rather have the nightmare" (Fitzgerald & Riley, 2000, p. 12).

#### *The nature of the assault*

Individuals are often drugged in locations that are conventionally perceived as "safe". For example, many survivors were drugged in crowded bars or clubs, and others at friends' houses (Sturman, 2000). Survivors were sometimes drinking or willingly taking recreational drugs before the assault, which can fuel feelings of self-blame and guilt. The nature of DFSA implies that the assailant (or assailants) was often prepared to carry out the assault and had a plan of action. There are also numerous accounts of survivors being photographed or filmed during the assault (Sturman, 2000). All of these factors can derange survivors' sense of safety. The level

of premeditation can lead survivors to regard themselves as easily duped, and being assaulted whilst regarding themselves as in a “safe” place causes survivors further to question their own judgement.

### *The response of others*

DFSA often bears little resemblance to stereotypical conceptions of rape, that is as violent and carried out in a remote location whilst the victim struggles. The responses of partners, relatives and institutions can reflect this. Anecdotally, it seems that the nature of DFSA can evoke “rape myths” that serve to make victims appear blameworthy and to exonerate assailants (Doherty & Anderson, 1998). For example, if a survivor was assaulted whilst out drinking and there was no sign of struggle or injury, their story of assault may be called into question. Survivors’ partners and law enforcement agencies may be sceptical, and the survivor’s minimal memories may not provide a convincing account. Schuller and Stewart’s (2000) vignette study showed that Canadian police officers viewed intoxicated sexual assault complainants more negatively (though the complainant’s intoxication did not affect officers’ decisions about charging the perpetrator). Both survivors and their partners may find it difficult to “move on” in the absence of a complete account of events. However, it must be noted that no data exist on partners’ response to DFSA, and as such it is unclear how common negative – or sympathetic – responses are. The legal process can also create barriers to both justice and recovery. Survivors may fear that urine and blood samples may reveal their illegal drug use or high alcohol levels, discouraging reporting (Sturman, 2000). They may also fear that the process of testifying in court will be demeaning and abusive; this is a fear with a strong basis in reality (see Lees, 1996).

## **Treatment**

### *Useful cognitive models*

Traditional treatments for PTSD have involved exposure to the traumatic memory and cognitive restructuring (e.g. Foa & Rothbaum, 1998). This approach has been shown to be effective, with prolonged exposure therapy proving particularly effective in the long term (Foa et al., 1999). However, exposure therapy cannot be applied in the absence of a traumatic memory. We have found Ehlers and Clark’s (2000) model of PTSD to be most useful in our clinical work. The model’s emphasis on peritraumatic processing (often disrupted by drugs) and ongoing appraisals of threat (which can be seen despite complete amnesia for the trauma) are particularly salient for the treatment of DFSA.

Aspects of Ehlers and Clark’s (2000) model have received empirical support from Dunmore, Clark, & Ehlers’ (2001) prospective study of PTSD after assault. Dunmore et al. found that aspects of processing during the assault, interpretations of consequences of the assault, trauma-related beliefs and maladaptive coping strategies predict PTSD. We note that many of these factors may be specifically exacerbated by the involvement of drugs in sexual assault. For example, the blunted affect and muscle relaxation induced by drugs may exaggerate the experience of “confusion” and “mental defeat” during the assault that has been shown to predict PTSD (Dunmore et al., 2001). The belief, “I must recall the assault in order to be able

to recover” can lead to maladaptive strategies such as ruminative attempts at recall; studies have shown that rumination predicts PTSD (Ehlers, Mayou, & Bryant, 1998).

Some of Dunmore et al.’s (2001) findings have been partially replicated in DFSA. Russell and Curran (2002) found that severity of PTSD was correlated with negative post-traumatic appraisals and with peritraumatic dissociation in their group of DFSA survivors. Thus, it seems likely that the successful treatment of DFSA trauma will include the modification of negative post-traumatic beliefs and appraisals. Table 1 contains beliefs and appraisals that are specific to DFSA, taken from our clinical practice. These have been mapped onto the categories of appraisal shown to be predictive of PTSD by Dunmore et al. (2001). We also note that memory fragmentation has been shown to predict PTSD after road traffic accidents (Murray, Ehlers, & Mayou, 2002). Ehlers and Clark (2000) hypothesize that recovery from PTSD involves the elaboration of traumatic memories and their integration into the overall autobiographical memory record. As drugs directly fragment traumatic memories and disrupt their emotional and temporal context, it may be predicted that drug involvement in sexual assault makes enduring PTSD more likely.

### *Cognitive techniques*

Ehlers and Clark (2000) propose three treatment strategies: exposure to traumatic memories, changing negative appraisals, and dropping maladaptive coping strategies. These techniques are familiar to CBT therapists and can all be used in DFSA, if they are accompanied by knowledge of this specific crime and its social context. Exposure may be carried out to traumatic memory fragments or to intrusions of secondary stimuli as described above. Indeed, such fragments or sensory impressions may constitute a survivor’s emotional “hotspots” (Grey, Young, & Holmes, 2002) and be central to exposure treatment. A minority of survivors with complete amnesia will not be amenable to exposure treatment. Alterations of negative appraisals and maladaptive strategies such as those detailed in Table 1 have been effective in our clinical experience. However, a number of factors specific to DFSA merit detailed discussion.

### *Specific issues*

The role of believing survivors of DFSA and validating their experience is critical. In our experience, survivors have been profoundly relieved to encounter professionals who believe them, particularly after inappropriate handling by other statutory services. Many survivors retain doubts as to whether they were drugged, despite ample evidence, and hold beliefs about the potential for individuals to “repress” recent traumatic memories that are at odds with a contemporary scientific understanding of memory. Survivors can be usefully reassured on these points. If a survivor internalizes “rape myths”, self-blame and distress can be exacerbated; as noted above, aspects of DFSA can make survivors particularly vulnerable to negative appraisals of their behaviour. Therapists must proceed from the standpoint that it was the assailant’s breach of the survivor’s personal and physical integrity that deserves moral and legal condemnation, irrespective of perceptions of the survivor’s behaviour “contributing” to the assault. This does not preclude clinical interventions aimed at reducing future vulnerability to assault.

**Table 1.** Experiences, appraisals and coping strategies seen in DFSA, organized by the categories shown to be predictive of PTSD by Dunmore et al. (2001)

Categories shown to be predictive of PTSD by Dunmore et al. (2001)	Experiences, appraisals and coping strategies seen after DFSA
Processing during assault	
<i>Mental defeat</i>	Unable to move
	Unable to plan
<i>Mental confusion</i>	Why am I crying? I don't feel upset.
	I can't move my arms and legs [muscle relaxant properties of drugs]
	Why am I so unafraid/not upset?
<i>Detachment</i>	[Dampened emotional response by drugs]
Interpretation of consequences	
<i>Appraisal of symptoms</i>	I've repressed part of the experience
	I'm going mad
	Something truly awful must have happened for me to repress it
	I can't even trust my own memory now
	It's repressed and it will flood back at some point
<i>Perceived negative response of others</i>	People don't believe me – it's an odd story, I didn't struggle, I can't remember much and I was drinking
<i>Permanent change</i>	I will never be able to move on until I remember what happened
Trauma-sensitive beliefs	
<i>Negative beliefs about self and world</i>	I can't trust my own memory
	Maybe I asked for it – I didn't struggle
	Maybe I was drugged and acting crazy
	It's my fault – I was willingly drinking/taking drugs
	Nowhere is safe – I was drugged in such a "safe" place
	I must be very gullible – they must have planned it and I didn't see it coming
	Any man I see from now on might be my assailant [no memory of his face]
	People saw me acting strangely/naked/dishevelled when I was drugged
Maladaptive control strategies	
<i>Avoidance/safety-seeking</i>	Avoid going out/going to pubs or clubs
	Refuse to drink anything that you have not seen poured
	Ruminate, try to reconstruct event
	Try to work out temporal order of fragments, try to fill in the gaps
	Seek hypnosis to recover memories

We have found it particularly important to address survivors' attitudes to their "missing" memories. The consuming search for recall has been a marked feature of much of our clinical experience with DFSA. Clients, their partners (and exposure-oriented therapists) can become trapped by the belief that "I must be able to recall the event to recover". As noted above, in

most cases the memory trace was not laid down and recall is unlikely. We inform patients that in our experience the majority of their memory will never be recovered by conscious effort (or by hypnosis), though there is a possibility that they may experience recall of further, small fragments in response to particular cues in future. Thus, we emphasize moving on in the presence or absence of further recall and proceeding with other important therapeutic work.

### Conclusion

DFSA is poorly understood and appears to be increasing in prevalence. We have summarized treatment strategies that, in our experience, address the specific nature of this trauma. However, the anecdotal nature of our recommendations indicates the need for further research in this area. Prospective studies and attempts to survey representative populations of survivors would be particularly valuable.

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