

Would you take the 'Super Woman' pill? Stressed at work, overwhelmed at home, a generation of women are turning to brain-boosting drugs to help them cope

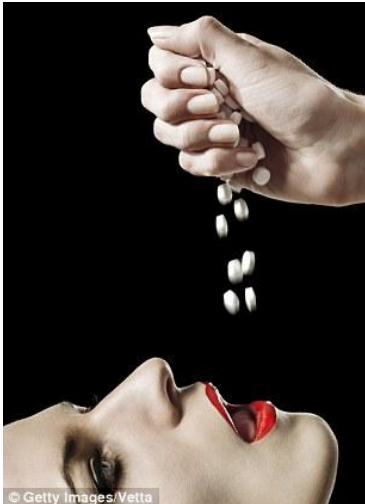
- **Women aged from 25-34 are the most stressed demographic group in Britain**
- **Alison Zobria, 24, from Manchester, took Adderall to cope with stress**

By Sally Howard

Back in the Fifties, a generation of women numbed the boredom of the daily grind with barbiturates - famed for their instant calming effects.

The Sixties saw Valium become the housewives' choice, immortalised in the Rolling Stones song Mother's Little Helper. In the Seventies, millions took amphetamines to aid drastic weight loss. Antidepressants such as Prozac were the story of the Nineties.

For the past half-century, aggressive marketing from pharmaceutical companies has encouraged people to deal with the ups and downs of daily life with the aid of pills. Overweight? Tired? Wakeful? Sad? Take a pill.



Alison Zobria, 24, of Manchester, right, initially believed Adderall was helping her cope with the overwhelming pressure of her job in finance

And now the drugs taking the U.S. by storm are those that provide mental focus - such as Adderall (part of a family of legal stimulants that includes the brand names Modafinil and Ritalin) - and are prescribed to treat the sleep disorder narcolepsy or attention deficit-hyperactivity disorder (ADHD). Other cognitive enhancers - collectively known as 'nootropics' - are designed to improve intelligence and mental functions in healthy people.

Recent research shows 10 per cent of Cambridge students admit to abusing such stimulants - but the pills are also being taken up in increasing numbers by professional women, desperate to get an edge in these competitive times.

For them, this new generation of smart drugs is a way to cope with demanding, fast-paced lives. A report last year revealed that Britons are working ever-longer hours, with 26 per cent of us now putting in more than 48 hours a week. Something has to give and, more often than not, it's us, says Professor Barbara Sahakian, the neuroscientist who led a recent Cambridge University study into cognitive enhancers.



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Brain boost: Some cognitive enhancers - collectively known as 'nootropics' - are designed to improve intelligence and mental functions in healthy people

'That's part of the problem. Our lifestyles are becoming too fraught and unforgiving,' she says. 'We're adapting ourselves to difficult situations by taking drugs rather than demanding that the working world becomes more, well, human.'

Alison Zobria, 24, of Manchester, initially believed Adderall was helping her cope with the overwhelming pressure of her job in finance. Long hours and a competitive environment coupled with her frenetic social life made her feel she could only get by with the help of a stimulant.

'Adderall made me a "superhuman" version of myself,' she recalls. 'Popping a pill meant I could finish what I started without clock-watching. Before, I'd get distracted and get up to make a cup of tea every 20 minutes or so. With Adderall, I'd be engrossed in my work for three hours straight. And I could think more clearly.'



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Stressed? A report last year revealed that Britons are working ever-longer hours, with 26 per cent of us now putting in more than 48 hours a week

Alison first took Adderall to help her study for grueling university exams. She had heard it would improve her memory, aid concentration and reduce tiredness.

'I was studying for an MA in business management, but my concentration was terrible and I'd bounce from task to task without finishing anything,' she says. 'I knew lots of other students who were taking it - their grades were improving and they said it was easy to get it from your doctor.'

'I lied about having symptoms of ADHD - such as restlessness and inability to concentrate - and got a prescription.'

But Alison soon found that she couldn't live without the extra boost she got from Adderall, and continued to use it after she left university. Her excuse was that she 'needed' it to help her keep up at work.

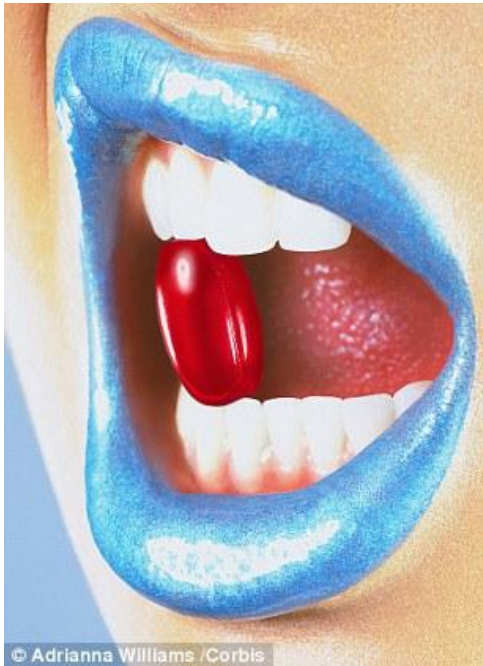
'I took the drug for four years,' she says. 'It became my lifeline.' However, her 'miracle drug' is not free of potential side-effects. These can range from weight loss to hyperactivity, insomnia, a racing pulse and so-called 'flat-lining' - the ironing out of the user's personality to such an extent that friends and family may no longer recognise them.

In Alison's case she lost half a stone in the first fortnight, her sex drive disappeared, and her ability to play sport nose-dived. She also found herself becoming increasingly reliant on the little yellow pills. 'The first week was heaven,' she says. 'Then I realised the beneficial effects were leveling off, so I found myself taking more and more.'

When the side-effects started becoming too much, she thought if she stopped taking the drug, they would quickly recede. However, she soon realised that would not be the case.

'Going cold turkey was hell,' she says. 'I was depressed and sluggish for weeks.' And her advice for anyone thinking of taking the drug is: 'Don't - because the temptation is to take more and more.'

COMING SOON....TABLETS TO MAKE YOU KINDER



Could pills make you nicer?

Imagine a pill that could turn anti-social louts into ideal neighbours. Sounds appealing? It might not be far away...scientists are currently looking at using drugs to improve our morals. Drugs that affect behaviour already exist. Antidepressants make people less aggressive, while oxytocin - the 'cuddle drug' - increases empathy.

But their effects are unreliable. Oxytocin, for example, makes you more likely to trust members of your social group, but reduces empathy for those outside it. Scientists want to fine-tune these drugs - and believe they could be used to help reform criminals.

Most of us would like to improve our memories - and now we could have the means. Researchers have found that one molecule, PKR, regulates neuron interaction in memory. When PKR is suppressed, another, gamma interferon, steps in. This understudy molecule is much more efficient.

So a drug that inhibits PKR and lets gamma interferon take over could be used to help Alzheimer's patients combat memory loss. It could also help healthy people turbo-charge their memories. Scientist Cynthia Kenyon may have found the key to longevity. A gene called DAF-2 has been suppressed in nematode worms to allow them to live six times longer. Kenyon thinks the gene might also play a role in human ageing and could be pharmacologically manipulated within 15 years.

Alison's experience is a cautionary tale, yet she is far from alone. Recent research suggests that UK prescriptions of stimulants, including Ritalin and Dexedrine, has skyrocketed in the last few years - and trebled for people aged 18 to 24.

Experts worry that young people are being introduced to them as students, then continue to use them in later life, as Alison did.

The incentive is clear: studies have shown that a 10 per cent boost to memory is enough to raise students one grade at A-level or into a different degree class.

But then these students become workers and harassed parents who keep taking brain-boosters just to get them through the day.



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Health warning: Doctors advise that self-prescribing experimental drugs - even ones with no current reported side-effects - is playing with fire

A search on the internet reveals numerous chatrooms devoted to the discussion of stimulants such as Adderall, Ritalin and Modafinil (designed to keep those suffering from narcolepsy awake). Many of the chatroom users who admit to taking the drugs are women desperate to find a way to keep all the plates spinning. They claim these little pills give them the focus to get through long days at work, and the energy to come home and spend quality time with their children. 'Binging on addys to cope,' reads one forum post. 'Will my kids notice?' 'Bladder cramps from Ritalin use,' reads another. 'Shall I crush pills to prevent symptoms?'

WORN OUT

Women aged from 25 to 34 are the most stressed demographic group in Britain. Graphic designer Gemma Mangan, 33, from North London, is one mum who has turned to brain-boosters. She explains: 'My husband works part-time, and financial pressures meant I had to return to work just four months after giving birth to our first child.

'What I hadn't planned for was the utter exhaustion and befuddled baby brain. I was absent-minded. I couldn't even remember what to buy from the supermarket let alone manage deadlines. I messed up a job that should have been easy, and lost a major client.

'I needed a solution. After trying fish oil and ginkgo biloba - both of which are reported to help improve memory and concentration - and having no success, I read online about brain-boosting tablets called nootropics. 'The testimonies were mainly from students under pressure to improve their test results, but I also found mothers who were trying to juggle the demands of a job and young family.'



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Side effects: 'A few nights a week I'll have vivid dreams, or nightmares - sometimes I have insomnia. It's as if my brain's stuck with its foot on the pedal at 90 miles an hour'

Gemma considered amphetamine-based drugs like Adderall and Ritalin, but was put off by the possibility of losing her sex drive. Then she heard about a new generation of cognitive enhancers that work on the brain's supply of

neurochemicals.

They aren't stimulants and don't lead to irritability or weight loss. But they can cause psychological symptoms such as nightmares, anxiety, irritability, nervousness and tremors. Originally developed to help patients with conditions that impair memory function - such as Alzheimer's and dementia -they have become popular with otherwise healthy individuals looking for a performance edge.

UNDER PRESSURE

Women say they face an average of 208 stressful situations a year

After doing some research, Gemma chose a drug, found an online supplier and ordered three months' supply. 'I found it cleared my brain fog immediately,' she says. 'It was like having a strong espresso.' For Gemma, the pills work well by day. But at night she experiences the downsides. 'A few nights a week I'll have vivid dreams, or nightmares,' she says. 'Sometimes I have insomnia. It's as if my brain's stuck with its foot on the pedal at 90 miles an hour.'

Self-prescribing experimental drugs - even ones with no current reported side-effects - is playing with fire, warns Professor Sahakian.



Online doctor: The UK's drug watchdog Medicines and Healthcare Products Regulatory Agency (MHRA) recently warned of the health dangers of buying medicines from unreliable sources such as the internet

'Ordering drugs online is particularly dangerous. You have no idea what you're actually purchasing,' she adds. The UK's drug watchdog Medicines and Healthcare Products Regulatory Agency (MHRA) recently warned of the health dangers of buying medicines from unreliable sources such as the internet. During a recent raid of one online supplier, police discovered piles of pills stored in filthy bedrooms where dogs were roaming around freely. Apart from the risks of ingesting potentially contaminated drugs from suspect sources, there are the unknown long-term consequences of tinkering with your brain chemistry. 'It's possible one day soon that this will all be so commonplace that we'll order smart drugs with our morning latte,' says Professor Sahakian. 'It's equally possible that smart-drug use will leave us with a health crisis on our hands.'

And Lawrence Diller, author of *Running On Ritalin*, says the question that should be asked is whether the female users of these brain-boosting drugs need them - or just simpler lives. 'The biggest problem with these women is they set the bar too high,' he says. 'Nobody could realistically accomplish all these things without taking a performance enhancer.'

Gemma's name has been changed.