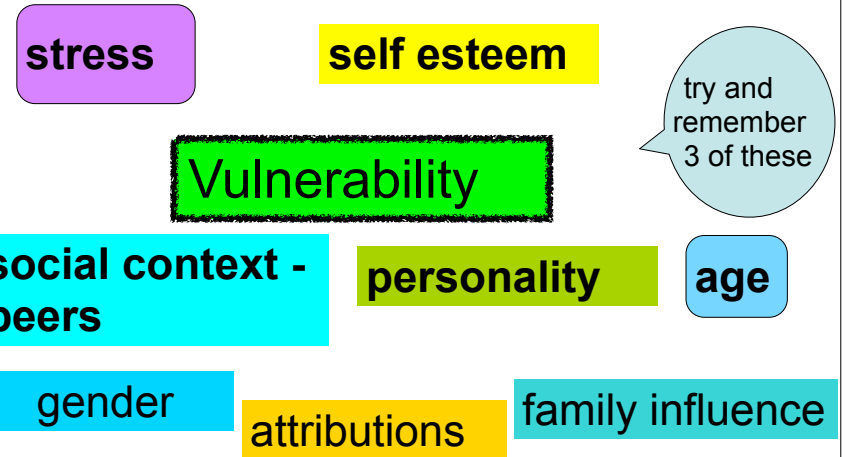


5. Factors contributing to vulnerability to addictive behaviour

BATs

- **AO1** - Describe factors that may contribute to vulnerability to addictive behaviour (D/E)
- **AO1**– Outline relevant research findings (D/C)
- **AO2/3** – Evaluate relevant research findings (C/A)
- **Stretch and Challenge -AO3** – Plan and carry out an investigation
- **Synoptic aspects** – gender bias, ethical issues, problems of determining causality
- **Homework** – Or write the essay on p247 q4 or 'Don't Gamble on the Exam' worksheet

What do you think makes people more vulnerable to addiction?



Starter – key words

- Place a post it note with a key word relating to Addictive Behaviour on to your partner's forehead.
- They need to ask you questions to find out what the key word is!!
- Have Fun!!

Vulnerability to Addiction

BATs

- **AO1** - Describe factors that may contribute to vulnerability to addictive behaviour (D/E)
- **AO1**– Outline relevant research findings (D/C)
- **AO2/3** – Evaluate relevant research findings (C/A)

What does the spec say about vulnerability to addiction?

- Risk factors in the development of addiction, including stress, peers, age and personality

5

Stress and Addiction

- Stress and addiction deeply intertwined
- Stress and addiction produce some of the **same changes in brain systems** and so they are intimately connected.
- **Animal studies** have shown that the brain changes associated with stressful experiences are also associated with **more sensitivity to the effects of drugs of abuse**.
- For people who have addictions, **stressful life experiences** such as divorce, job loss and conflict are often associated with **craving and relapse**.
- In addition, people with addiction often **have poor coping strategies** and **turn to drugs and alcohol to relieve stress**.

Remember the stress response from Y12?

Stress and Addiction by [Kathleen Brady, M.D., Ph.D.](#)

Stress and Addiction

- Stress related drinking, drug taking
- If this behaviour continues it can lead to the alcohol/drug becoming the stressor and so you continue to drink/take drugs to relieve the stress



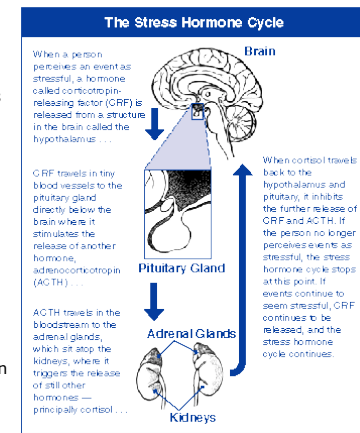
• **The Vicious Cycle** - Jessica Peynton, Rebecca Lontop and Mike Many

• **Stress and Addiction**

By [Elizabeth Hartney](#), About.com Guide December 29, 2015

Stress and Addiction

- **NIDA** –Researchers speculate that CRF and ACTH may be among the chemicals that serve dual purposes as hormones and neurotransmitters. The researchers suggests that if, indeed, these chemicals also act as neurotransmitters, they may be involved in producing the **emotional responses to stress**.
- Among the chemicals that inhibit the cycle are neurotransmitters called **opioid peptides**, which are chemically **similar to opiate drugs** such as heroin and morphine.
- Dr. Kreek has found evidence that opioid peptides also may inhibit the release of CRF and other stress-related neurotransmitters in the brain, thereby inhibiting stressful emotions.
- Thus, when people take heroin or morphine, the drugs add to the inhibition already being provided by the opioid peptides. This may be a major reason that some people start taking heroin or morphine in the first place, suggests Dr. Kreek



- some people who have difficulty coping with stressful emotions might find that these drugs blunt those emotions, an effect that they might find rewarding. This could be a major factor in their continued use of these drugs.⁸

Age and Addiction - smoking

- *ScienceDaily (Sep. 10, 2003)* — Durham, N.C. -- People who begin smoking in their teens may be particularly vulnerable to long-term nicotine addiction, according to an animal study conducted by Duke University Medical Center pharmacologists. The study emphasizes that the age at which individuals begin using nicotine can have a major physiological impact to encourage later use of the drug.
- In their study, the researchers compared the amount of nicotine self-administered by adolescent rats to the amount used by animals first exposed during adulthood. Young rats showed nearly double the rate of nicotine use compared with those initially exposed as adults, the study found.

The adolescents' heavier nicotine use persisted into adulthood, the team reports in the September 2003 issue of the journal *Psychopharmacology*.

"The results indicate that early nicotine exposure can leave a lasting imprint on the brain," said Edward Levin, Ph.D., professor in the psychiatry and behavioral sciences department at Duke University Medical Center

Adolescence is also a crucial period for the brain, he said, in which the final phase of neuron development occurs.

Commentary - However, researchers find it difficult to assess the underlying cause of an association between age and addiction in humans, he added, because the same factors that make people prone to nicotine addiction may also encourage them to begin using the drug at a young age.

Research carried out on rats

9

Age and Addiction - Older Age

- Baby Boomer generation - born between 1946-1964
- Largest-ever American generation, it sports the highest of rate involvement with substance abuse. In 1995, the U.S. Department of Health and Human Services (DHHS) reported that approximately **49%** of baby boomers (at that time, 31- to-49-year-olds) had ever used illicit drugs. This was a drastic increase from the **11%** reported by adults over the age of 50.
- Studies **support the link between substance abuse in early life and later substance abuse issues and problems**. The DHHS estimates that the number of problem substance users aged 50 or older will increase from **2.5 million in 1999 to 5.0 million by 2020**.

Coming-of-age baby boomers heralded a new era of illicit drug use in the United States – and aging members of this generation have maintained a higher rate of involvement with illicit drugs than the generation immediately preceding it.

A study by the National Institute on Drug Abuse (NIDA) that was published in the May 16, 2008, edition of *Scientific American* found that illicit drug use among people ages 50-59 increased from 2.7 percent in 2002 to 4.4 percent in 2005.

4therapy.com - Emily Battaglia

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Age and Addiction - Alcohol

- Study by Deborah Dawson at NIAAA (USA)
- "The key finding of this study was that people who started drinking before age 15, and to a lesser extent those who started drinking at ages 15 to 17, were more likely to become alcohol dependent as adults than people who waited until 18 or older to start drinking," said Dawson.

- "Past studies have often suggested that this association might result from common risk factors predisposing people to both early drinking and AUDs. Although **the current study does not provide conclusive evidence that early drinking directly increases AUD risk**, it suggests that it is premature to rule out the possibility of such a direct effect."

"By **controlling for a variety of confounding risk factors in their analysis**, Dawson and colleagues were able to demonstrate that ... early alcohol consumption itself, as a misguided choice or decision, is driving the relationship between early drinking and risk for development of later alcohol problems," observed Howard B Moss (NIAAA).

"We believe that **impaired executive cognitive function (EGF)** may lead to choices that favor the immediate pleasures of heavy drinking over avoiding the long-term risks of developing an AUD," said Dawson.

"Impaired EGF would likely result from **frequent and/or extremely heavy drinking at early ages**, not from the simple fact of having initiated drinking at early ages. **The big question is whether the impaired EGF preceded and led to the early drinking (and the increased risk of AUD), or whether the early drinking caused the impaired EGF.**"

10

Is there an Addictive Personality?

- Hans Eysenck (97) proposed that the individual develops an addictive habit because it fulfils a certain purpose related to that person's personality type.
- Eysenck believes that there are 3 personality dimensions which are passed on genetically

AQA Psychology A Bailey et al '09

Is there an Addictive Personality?

- **P** – (Psychoticism) – aggression, coldness, impulsivity and egocentricity
- **N** – (Neuroticism) – moodiness, irritability, and anxiety
- **E** – (Extraversion) – sociability, liveliness and optimism

AQA Psychology A Bailey et al '09

Which of these applies to Addicts?

Is there an Addictive Personality?

- Substantial research into link between **alcohol addiction and personality disorders** such as...
- **Sociopathy** -Antisocial personality disorder (Rounsaville et al '98)
- **Conduct Disorder** e.g. ADD - (Slutsky et al '98)
- Once again these are correlational studies so not clear if there is a **causal link**, but useful for clinicians to be aware that addictions coexist with other mental disorders when deciding on treatment

AQA Psychology A Bailey et al '09

AQA Psychology A Bailey et al '09

Is there an Addictive Personality?

- Research into possible relationship between drug dependence and these Personality dimensions ..
- Little evidence to support relationship between E and drug dependence
- But Francis (96) found convincing evidence for a link between dependence on alcohol, heroin, BZ's and nicotine with higher than normal scores in N and P.

Difficult to say whether the addicts were moody, impulsive, aggressive e.t.c or displayed those behaviours because of the addiction

Francis' research was correlational – what problems may this cause?

Gender and Addiction

- Increase in smoking rates in females in comparison to males .
- Maybe because smoking perceived as a way to keep weight down – smokers weigh – on average - 7lb less than non-smokers!
- On quitting, weight gain is often in the region of 6lb
- Ogden and Fox (94) – female dieters often used smoking as a weight maintenance strategy

AQA Psychology A Bailey et al '09

Family Influence and Addiction

- Children and adolescents often model their behaviour on parents and older siblings
- What other factors may encourage addiction?
- Parents with more permissive attitudes to drug use
- Family discord or inconsistent parenting
- Fisher '99 youth gamblers more likely to have parents with gambling problems or are unconcerned about their children gambling
- Sociocultural background

AQA Psychology A Bailey et al '09

Over to you ...

- To help you write an essay fill in the 'Discussing Self Esteem and Addiction' sheet
- Now choose 2 other Vulnerability factors e.g. Age, Stress, Peers or Personality and make your own discussion sheet

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Family Influence and Addiction

- Sociocultural background a factor in predicting substance abuse– Hall et al '90
- Substance abuse more likely in...
- Lower socio-economic backgrounds
- Areas with high rates of crime
- When individuals have had fewer years of education or school related difficulties
- E.g. Gamblers more likely to truant and lie and steal to finance gambling

AQA Psychology A Bailey et al '09

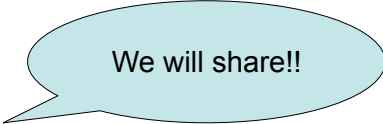
Writing a successful essay!

- **PLAN** - bullet points - 5 mins well spent!!!
Write on the exam paper if necessary -
highlight key words and instructions
- **Intro** - only one sentence needed - restate the question (it will help get your brain thinking along the right lines!!)
- **Point 1 - A01** - not too long **100** words max.
Use key terms
- **Point 2 - A02** - **200** words - elaborate/
explain, evidence, synoptic point (elaborate on this too - not an afterthought)

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Writing a successful essay!

- **Repeat for point 2**
- **Conclusion** - add in **implications** of this theory/research on the world
- Now you try ..
- In groups discuss what needs to go in - plan, intro and conclusion
- One writes the A01 for point 1
- One writes A02 for point 1
- One writes the A02 for point 2
- One writes A01 for point 2



We will share!!

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Plenary

- Present to each other - make notes or annotate worksheets created for you
- Discuss in your groups which explanations are most plausible and easiest to write about in the exam
- **Homework** – either write the essay on p247 q4 'Discuss 2 or more vulnerability factors for addiction' (8 + 16 marks)
- or the 'Don't Gamble on the Exam' worksheet - write an essay (15 marks)

Marking Exercise

- Look at the examples of real essays
- Use the marks scheme to decide how well this person would do in an exam
- Highlight the A01 and A02 in different colours and synoptic points in another colour
- A01 - 200 words - 8 marks
- A02 - 400 words - 16 marks

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