
This paper reported on the SIPS trial in which they wanted to evaluate the effectiveness of the different brief interventions strategies for alcohol in primary care. They used primary care practices in the north-east and south-east of England (including London). Their initial hypothesis was that more intensive interventions would result in a greater reduction in hazardous or harmful drinking.

The practices were regarded as individual clusters and each cluster received a different intervention. The practices (not the individuals) were randomised to three interventions: the first received a patient information leaflet and were, in effect, the control group. The second got the leaflet and five minutes of structured brief advice. The third got the leaflet, five minutes of brief advice, and 20 minutes of brief lifestyle counselling.

The primary outcome measure was patients’ self reported use of alcohol measured by the Alcohol Use Disorders Identification Test (AUDIT) questionnaire at six months. Anyone scoring <8 was regarded as negative and the rest were regarded as having hazardous or harmful drinking status. A total of 3,562 patients routinely presented to primary care and 2,991 were eligible to enter the trial. Overall, 900 (30.1%) screened positive for hazardous or harmful drinking. A total of 756 received a brief intervention. Follow up rates at six months were 83% (n=644) and 79% at 12 months (n=617). At both of these times there were no significant differences in AUDIT negative status between the three intervention groups.


This paper wanted to compare individual clinical suspicion of an alcohol problem with a standard screening instrument. It was a cross-sectional study of 94 primary care clinicians in practice. After patients had visited the clinic the clinicians filled in a questionnaire and the patients were screened using the Alcohol Use Disorders Identification Test - Consumption (AUDIT-C). This is the shortened version of the full AUDIT questionnaire and consists of just three questions. The clinicians were asked if the patient had a problem with alcohol and could choose to categorise them as hazardous, dependent or ex-drinkers. In the end 1,699 patients completed the exit questionnaire. Of these 10.1% (n=171) had a positive screening test for hazardous drinking (AUDIT-C of ≥5) and 3.8% (n=64) for harmful drinking. The clinicians suspected alcohol problems in 81 patients in total. The results showed that the sensitivity of clinical suspicion was 27% and specificity 98%.
Commentary: These papers neatly sum up the main questions when it comes to managing alcohol in primary care. Firstly, can we find it? And if we do find it what can we do about it? These two papers answer, to some extent, both of these questions. The results from the BMJ paper seem a little surprising. There has been a general acceptance that brief interventions are effective - backed up by systematic reviews and meta-analyses. No one has been getting too carried away - the effects are small. But scaled up, over the whole population, they are usually regarded as being worthwhile and have generally demonstrated significantly reduced alcohol consumption. It is possible that in the SIPS trial the control intervention was ‘too good’ and reflects the best strategy for primary care at the screening stage - we give the simplest of feedback and some written information.

The second paper will ring a bell with those clinicians who dislike questionnaires and ‘instruments’ of any hue. Many GPs will believe that little can beat experience and clinical nous. They should prepare to be disappointed. It’s certainly true that clinical acumen will take into account a whole host of complex life factors beyond the main questions featuring in the AUDIT-C. This paper showed that while clinical suspicion of alcohol problems had good specificity it actually had a rather low sensitivity. The fact is that clinicians missed most patients with a potential alcohol problem. It’s also worth highlighting that this paper used a threshold of ≥5 yet the current UK recommendations are that an AUDIT value of 3 or more is used to prompt further exploration. When an AUDIT-C threshold of ≥3 in women and ≥4 in men is used the sensitivity of clinician suspicion dropped even further to 16.1%.


This German paper was a retrospective study of people who had gone to the emergency department seeking help after recreational use of synthetic cannabinoids. The patients were selected from the Freiburg poisons database for the period between September 2008 and February 2011. They included people who had been hospitalised, had clinical reports available, and where it was possible to get analytical verification of the synthetic cannabinoid uptake.

They found 29 patients who could be included and the most common clinical findings reported were: tachycardia, agitation, hallucinations, hypertension, slightly raised blood glucose, hypokalaemia and vomiting. The analysis was able to identify the specific type of synthetic cannabinoid. Nine different types were identified but the most common ones varied over the years. Most of the symptoms resolved within 4-14 hours (median 7.5 hours) but acute psychosis in one patient lasted for several days. This episode was reported after a six-day binge on synthetic cannabinoids. Supportive care was all that was needed in the majority of cases with intravenous fluids and potassium supplementation where needed.
Commentary: The last time the SMMGP Clinical Update looked at a paper reporting on Spice products was back in August 2011. That was a small internet survey that had started to flesh out some users’ experiences of using the synthetic cannabinoids. They reported both positive and negative effects in that survey. This study of people reporting to the emergency department with intoxication offers some further details on the adverse effects. Obviously this paper selects out those who were most severely affected - after all they needed hospitalisation. It also suggests that the synthetic cannabinoids are probably more toxic than cannabis products because their intrinsic activity at the CB1 cannabinoid receptors is higher. This is in contrast to ∆9-THC which is only a partial agonist.

As discussed in the accompanying commentary piece in Addiction to this paper by Addy et al it was only in 2006 that the first synthetic cannabinoid, JWH-018, was identified as a component of Spice. There remain large gaps in our knowledge and understanding about these products. They are also something of a moving target - the main cannabinoid varied year on year in this study. Many people have turned to synthetic cannabinoids such as Spice to avoid the legal consequences of buying and possessing cannabis. The irony of the government’s approach to the classification of cannabis is that it may well have pushed individuals towards more toxic - and certainly less well understood substances.


This paper aimed to compare emotion perception and social inference (the ability to infer the intentions and beliefs of others in normal daily social interactions) in opioid maintenance patients with abstinent ex-users and non-heroin using controls.

They took 125 people on opiate substitution therapy (MAIN) and they also had 50 abstinent users (ABST) and 50 matched controls (CON). They used the Awareness of Social Inference Test (TASIT) to measure emotional perception and social inference. This is a standard test of social cognition. It uses a series of 14 video vignettes of professional actors who portray the six basic emotions: happiness, sadness, anger, fear, disgust and surprise. There are two vignettes of each emotion and two that are neutral. The comprehension of the vignettes was assessed by asking each participant four yes/no questions per vignette which covered the speaker’s feelings, beliefs, intentions and meaning. The participants also completed some neuropsychological tests to assess cognition.

The results showed that the MAIN group was impaired relative to the ABST and CON group on emotional perception. The MAIN group was also impaired relative to the CON group on social inference. These were all statistically significant differences. There were no differences between the
ABST and CON groups on any measures. The mean methadone dose in the MAIN group was 82.7mg and the mean buprenorphine dose was 10.6mg.

**Commentary:** Those on opioid substitution therapy were much worse at reading the emotional state in others or interpreting conversational inferences. There were no associations with methadone dose and no differences between methadone and buprenorphine sub-groups - the authors therefore suggest that it is not the maintenance treatment *per se* that is causal. However, we’ve reported before (Clinical Update Feb 2012) on a study that showed significant emotional blunting with methadone. It should be noted in this study that the MAIN group was also poorer than the ABST group in cognitive function and social perception.

The consultation is the keystone of general practice and much time is spent training clinicians in the subtleties and depths of the consultation. There seems to have been very little of this that has trickled down to clinicians in substance misuse settings. How much do we adjust our normal consultation skills? The results of this study suggest we should be particularly careful to avoid "hyperbole, humour, sarcasm and hints when communicating important therapeutic information". Most experienced clinicians probably manage this without any great thought - but it bears some further scrutiny. A slightly more direct consultation style may be an important fine adjustment in people who have difficulties with social perception.

The next two papers have been selected from the journal, Clinical Obstetrics and Gynecology, which ran a special substance misuse themed in their March 2013 edition (www.clinicalobgyn.com).


This paper starts by highlighting the acute effects of cocaine in the non-pregnant user: a rise in blood pressure; an increase in heart rate; it can also cause coronary vasospasm and an increased risk of thrombosis leading to myocardial infarction. Large amounts of cocaine can lead to hypotension and cardiovascular collapse. Smoking crack cocaine can lead to pulmonary damage. The central nervous system effects include an increased risk of cerebrovascular accidents as well as risk of seizure and hallucinations. Acute cocaine intoxication can mimic pre-eclampsia. Additions to these the maternal effects include a risk of hypertensive crises, unexplained intrauterine fetal loss, preterm labour, and placental abruption.

Cocaine crosses the placenta barrier easily. The vasoconstrictive effects of cocaine mean there is a significant increase in first trimester spontaneous abortion. An increased risk of congenital malformations has been suggested with an overall rate of 10% versus 2% for cocaine-negative controls. Smaller birth weights seem to be associated - but the authors point out that picking out all the confounders is challenging.

This article covers some of the issues that could be faced when having discussions with women about breastfeeding using any substances or who are prescribed opiate substitution therapy.

It has been established that women on methadone are able to breastfeed. The American Academy of Paediatrics position from 1983 to 2001 was that breastfeeding was only recommended for women on ≤20mg of methadone. This was revised in 2003 when it was confirmed that the dose of methadone doesn’t affect the amount of the drug in human milk. This is partly because methadone has a high molecular weight and is 95-90% protein bound - both of which tend to reduce transfer into breast milk.

In the case of cannabis there is a lack of evidence and some conflicting studies. Some infants who have been exposed have excreted tetrahydrocannabinol (THC) in their urine and shown signs of sedation, poor growth and reduced muscle tone. One study has shown no effect on motor development but another showed lower mean developmental outcomes at one year in infants exposed in pregnancy and during two lactating months after birth.

There are some case reports that have suggested that cocaine can be transferred to breast milk - in one case report an infant had cocaine intoxication three hours after the mother snorted powder cocaine.

The properties of alcohol mean its concentration in breast milk will reflect maternal blood alcohol levels. A small drink more than 2 hours before any breast feeding may be OK; anything else will result in infants consuming alcohol.

Heroin itself is known to transfer into breast milk and doses of morphine are used for pain control in breastfeeding mothers. Even these therapeutic doses have been reported in the breast milk. Using heroin recreationally is likely to involve much bigger doses. The conclusion of the authors is that breastfeeding should not be recommended in women who are using heroin recreationally.

Buprenorphine looks as if it will be compatible with breastfeeding - but more research is still needed. The amount of the drug that makes it into breast milk is a key determinant. Studies of the relative infant dose in one study showed it to be 0.38% - compare this with the figure of 12% noted in one study with morphine.

Commentary: The rhetoric in the cocaine paper does occasionally slip toward the mildly hysterical. For example: “the potential long-term effects for the upcoming generations are beyond comprehension”. Steady on. Despite the tone of the paper it’s still recommended as an excellent summary of the issues.
When it comes to breastfeeding the default position that most clinicians will start from is that breastfeeding will generally be recommended. After all, it is the standard for infant feeding. It’s important that we don’t simply resort to the contrary standpoint when advising women who have substance misuse issues. This paper will help support that position when appropriate and highlights when caution may be necessary.


This study took participants from nine methadone maintenance treatment clinics in New England. They were recruited as part of a smoking cessation trial and so were all smoking more than 10 cigarettes/day. The researchers assessed their physical activity levels as well as the perceived benefits and barriers to exercise. They were asked to identify perceived barriers to exercise using an 18-item scale. They rated each item on a scale from 1 to 7 where 1 meant “not at all true for me” and 7 was “very true for me”. They went through a similar process where they rated 16 potential benefits to exercise on a seven-point scale.

They had 305 individuals. Just over half were male, just under 80% were non-Hispanic white, and the mean body mass index was 29.8. Only 38% of the sample met the minimum weekly physical activity recommendations (for the USA) and nearly 25% would have been classed as inactive with no moderate of vigorous physical activity. [The national figures in the USA suggest that in the normal population nearly 50% meet the minimum requirements and 13.5% are classified as inactive.] In the study nearly 40% had a BMI greater than 30 - so were obese. In total over 75% of the cohort had a BMI greater than 25 so would be regarded as overweight or obese. The results did show that numerous benefits of exercise were identified and relatively few barriers to exercise were endorsed.

Commentary: The most commonly identified barrier by people to exercise was lack of motivation. Getting people to exercise is a challenge and it may be that some kind of brief intervention may be helpful. If nothing else we need to think about how we discuss the issue with people. Of course, there’s no evidence from this study to suggest that discussing exercise would be beneficial but there’s little doubt about the potential of exercise to improve mental and physical wellbeing. The authors speculate that the five A’s brief intervention model used in smoking cessation (ask, advise, assess, assist and arrange) could be adapted to give some kind of framework.

This study took patients enrolled in a Norwegian ‘opioid maintenance treatment programme’ and followed them up with electrocardiography (ECG) to measure their QTc interval at baseline, one month and six months. They had 80 patients: 45 people started on methadone and 35 on buprenorphine. None of the patients had any history of cardiac disease and all the ECGs were normal at baseline. All the ECG recordings were interpreted by a cardiologist - QT intervals were measured using a calliper in lead II, V2 and V5. The corrected QTc was then calculated using Bazett's formula. QTc prolongation was defined as values above 450ms in males and females.

The results showed that the mean treatment dose of methadone was 88.2mg at one month and 95.5mg (range 60-120mg) at six months. The mean treatment dose of buprenorphine was 16.1mg at one month and 18.7mg at six months. The average QTc measurements in the methadone and buprenorphine groups were 406 and 405ms respectively. No cases of QTc prolongation were detected in any of the groups and there were no significant changes in QTc interval during the course of treatment.

**Commentary:** This study quite simply found no significant effect of opiate substitution therapy on QTc intervals. The authors report that this is possibly related to the relative modest doses used. However, the doses at six months ranged from 60-120mg so they weren’t particularly under-dosing either. It’s further evidence that when using methadone in doses of less than 100mg the clinical significance of QTc interval prolongation dwindles. We’ll still need to watch for patients who could have an unknown history of long QT syndrome tucked away in the background; and we need to be careful when people may be using other medications or illicit drugs that prolong the QT interval. With those caveats in mind, routine ECGs on people on less than 100mg methadone look unnecessary.