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Heroin-assisted treatment: no difference in treatment retention

Haasen et al (2007) report highly significant findings from their trial of heroin plus methadone maintenance. A small problem is that the heroin plus methadone group were, to a large extent, self-selected, with only 2.3% failing to initiate treatment in this group ν . 28.8% in the methadone only arms. They state that this 'limiting effect . . . is minimised' by randomisation and intention-to-treat analysis. Intention-totreat analysis makes their already significant findings even more impressive, but randomisation is limited by the unavoidable self-selection in a trial which is necessarily not masked. The paper goes on to say that 'retention was higher in the heroin group, with 67.2% completing the 12month treatment compared with 40% of the methadone group', but later this is given as 56.3% for the methadone only group when the 28.8% who did not initiate treatment were excluded. The retention rate would rise again if the drop-out ('discontinued') rate was calculated using the same reduced denominator, and therefore retention rates would possibly differ insignificantly. Taking this into consideration would also explain the almost equal numbers of 'discontinued' participants in the two main arms of the trial.

The findings of this aspect of the trial are not surprising and without doubt it would be difficult to devise a control with the reinforcing power of heroin. Injectable methadone, financial incentives or pleasurable activities might approximate a substitute and produce more accurate retention figures. With the high cost of freeze-dried heroin, as used in the UK, adding these incentives might attract funding for a suitably modified study conducted here. Given that high retention rates are today's centrally defined most desirable outcome in the UK, this sort of study might be even more attractive here.

Haasen, C., Verthein, U., Degkwitz, P., et al (2007) Heroin-assisted treatment for opioid dependence: randomised controlled trial. *British Journal of Psychiatry*, 191, 55–62

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Author's reply Drs Al-Adwani & Nahata raise an important issue when evaluating the outcome of maintenance treatment, namely how to evaluate the retention rate in an unmasked trial. The special incentive for patients randomised to methadone treatment was the option to switch to the heroin group after completing 1 year of treatment. Since retention is considered one of the main outcome measures for maintenance treatment, our trial shows that heroin-assisted treatment has two advantages: it reaches a higher number of potential patients (percentage initiating treatment) and the retention rate of those initiating treatment is significantly higher (68.3 v. 56.3%, log rank $\chi^2=14.1$, P < 0.001). Therefore, it is incorrect to say that 'retention rates would possibly differ insignificantly': the difference is certainly less, but still significant.

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Factors in those who repeatedly self-harm

We read with interest the article on young people who self-harm (Young *et al*, 2007) but feel the outcome of factors considered would have been more viable if a further subgroup analysis was performed in those

patients who repeatedly self-harm. A significant amount of our time is taken up by people who self-harm repeatedly. This subset of clients are often entrenched in their behaviour patterns and use services disproportionately. Existing studies have not adequately analysed factors responsible for repetition of self-harm and we feel that Young *et al* missed an excellent opportunity to investigate this, albeit in a younger agegroup.

An analysis of our data from the Integrated Care Pathway (Rajwal & Gash, 2006) showed repetition rates of 40% for 2004, 42% for 2005 and 43% for 2006 of all our referrals each year. This means that 18% of our patients in 2004, 18.9% in 2005 and 19.2% in 2006 were responsible for the above statistics year on year. These data are from adults of working age and only include repetition in the same calendar year. About 13% of our referrals are under 21, and 18% of those are for repetitions of self-harm. Hence a small proportion of our clients are responsible for a large proportion of our work.

Our data support Young *et al* on the lack of a gender bias in the prevalence of self-harm. Females comprised 50.2% of our referrals in 2006 but only 49.0% of those repeating self-harm. The old myth of a higher proportion of females self-harming was not borne out by our statistics, although we considered the entire adult age-group.

We would be interested to know whether the results of Young *et al* would be different in the subgroup with repeated self-harm.

Rajwal, M. & Gash, A. (2006) Risk assessment in self-harm. *Psychiatric Bulletin*, **30**, 436.

Young, R., Van Beinum, M., Sweeting, H., et al (2007) Young people who self-harm. British Journal of Psychiatry, 191. 44–49.

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Authors' reply: Kripalani *et al* raise an important issue by suggesting that those who repeatedly self-harm may constitute a distinctive clinical subgroup. We initially avoided including this group in our study because there remains considerable uncertainty about an appropriate definition. However, following discussion with Dr

Kripalani we agreed a three-way classification of repeated self-harm among young people: repeated self-harm (19 out of 89), with self-harm both in the past and currently or using several (three or more) methods (since it is unlikely that multiple methods of self-injury refer to a single incident); a single incident (17 out of 89), with an explicit statement of a transient incident; unsure (53 out of 89), which constituted the remainder. The crude repetition rate of 20% is typical for self-harm (Bennewith et al, 2002). We proceeded to re-analyse the data from our original paper for repeat self-harm (results available on request).

In summary, we can confirm that repeated self-harm was unrelated to gender, or social class of origin, but was related to current labour market position, with youth outside the labour market more likely to self-harm repeatedly. Young people who repeatedly self-harmed were more likely to use all methods except taking pills and more violent methods, which were common to all groups. Those who repeatedly selfharmed were far more likely to do so to relieve negative emotions (anger, anxiety or to punish themselves), but self-harm with intention of killing oneself was common to all groups. Taken together this confirms that those who repeatedly selfharm are more likely to use self-injury as a coping mechanism. With regard to service use, those young people were nearly twice as likely to have used emergency services and over three times as likely to have used psychological services from the age of 11.

This suggests that young people and adults who repeatedly self-harm are heavy users of both health services in general and psychiatric health services in particular, and this is compatible with the assertion of Kripalani *et al* that a small proportion of clients may account for a large proportion of resources. Distinguishing between repeated and other forms of self-harm could provide useful clinical information, provided that both researchers and clinicians can agree on a clear definition.

Bennewith, O., Stocks, N., Gunnell, D., et al (2002) General practice based intervention to prevent repeat episodes of deliberate self harm: cluster randomised controlled trial. *BMJ*, **324**, 1254–1257.

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Attachment disorders: an evolutionary perspective

In a large twin study Minnis et al (2007) have demonstrated that attachment disorder behaviours can be differentiated from other common childhood emotional and behavioural disorders and appear to be strongly genetically influenced, particularly in boys. The authors also point out that, even in a population of children that was probably healthier than the general population, behaviours suggestive of attachment disorder were identified. Conventional aetiological factors are addressed but the paper would have benefited from the inclusion of an evolutionary perspective. Evolutionary or Darwinian psychiatry examines, among other things, the potential for adaptive benefits to pre-programmed psychobiological mechanisms (e.g. depressive symptoms or attachment disorders) that are sometimes incorrectly viewed as being simply abnormal or pathological (Abed, 2000).

It was surprising that Minnis et al made no reference to Bowlby's seminal work (Bowlby, 1958) in the area of attachment. Bowlby's perspective on attachment was an evolutionary one, in that he viewed the associated behaviours as representing evolved and adaptive psychobiological mechanisms, protecting the child from predators and the many other dangers prevalent in our ancestral environment. This 'adaptionist' perspective could have been explored by Minnis et al when considering why attachment disorder behaviours occurred at all in this healthy non-clinical sample.

Chisholm (1996) and Belsky (1997) proposed in more recent years an integration of life history theory (Levins, 1968) and attachment theory. Chisholm (1996) argued that, in life history theory, life cycles constitute evolved adaptive strategies. Furthermore, individuals must prioritise the allocation of their time and resources to different components of reproductive fitness (e.g. growth, mating or parenting). Therefore, the sexual strategy employed by parents (e.g. low investment in large numbers of offspring or vice versa) is an integral component of the child's early environment. Belsky (1997) argued that secure attachment in children functioned to promote a strategy of high-investment parenting, and avoidant attachment (child showing indifference to parent) as representing an adaptation to parental unwillingness to invest (e.g. when the parent invests instead in a short-term mating strategy with relatively little investment in individual offspring).

The anxious/ambivalent style of attachment evolved in response to parental inability (e.g. through illness) to invest, and fostered a 'helpers at the nest style' in the children, whereby children would cooperate in rearing siblings. For example, Turke (1988) demonstrated (independent of attachment disorders) that women from the Micronesian atoll of Ifaluk were likely to have significantly larger families when their first-born was female: an anxious/ ambivalent attachment style may further accentuate such behaviour in female children, perhaps explaining in part the gender differences in attachment disorders raised by Minnis et al.

These are merely a few examples of the insights that evolutionary psychiatry can provide. In the total absence of such an evolutionary perspective, one is reminded of Abed's (2000) cautionary comments: 'In recent years psychiatry has attempted to circumvent such problems by engaging in an atheoretical research enterprise involving gathering masses of data and calculating sophisticated statistical associations. However, such an endeavour of itself cannot generate a scientific discipline, for science is a method of discovering the world and not simply a body of facts'.

Abed, R.T. (2000) Psychiatry and Darwinism. Time to reconsider? *British Journal of Psychiatry*, **177**, 1–3.

Belsky, J. (1997) Attachment, mating and parenting: an evolutionary interpretation. *Human Nature*, **8**, 361–381.

Bowlby, J. (1958) The nature of the child's tie to his mother. *International Journal of Psycho-Analysis*, **39**, 350–373.

Chisholm, J. S. (1996) The evolutionary ecology of attachment organization. *Human Nature*, **7**, 1–38.

Levins, R. (1968) Evolution in Changing Environments. Princeton University Press.

Minnis, H., Reekie, J., Young, D., et al (2007) Genetic, environmental and gender influences on attachment disorder behaviours. *British Journal of Psychiatry*, 190, 490–495.

Turke, P.W. (1988) Helpers at the nest: childcare networks on Ifaluk. In *Human Reproductive Behaviour:* A *Darwinian Perspective* (eds L. Betzig, M. Borgerhoff-Mulder & P. W.Turke), pp. 173–188. Cambridge University Press.

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