Mental health

Whole body hyperthermia for depression

Whole body hyperthermia (WBH) shows promise as an effective treatment for depression, a randomised double-blind, sham-controlled trial, published in *JAMA Psychiatry*, has concluded.

A total of 34 participants aged 18-65 with DSM-IV major depression were randomised to receive either a single session of WBH or a sham session. Depression severity was assessed at baseline and during the six-week follow-up period using the 17-item Hamilton Depression Rating Scale (HDRS).

Participants assigned to the active intervention were heated to a target core body temperature of 38.5° C using infrared lamps. The sham session mimicked all aspects of WBH except intense heat and nearly three quarters of those receiving sham treatment (71%) believed that they had received WBH.

Overall, 29 participants completed at least one post-intervention assessment and were included in a modified intention-to-treat analysis. Compared with the sham group, the active WBH group had significantly lower HDRS scores throughout the follow-up period:

- Week 1: -6.53 (95% CI: -9.90 to -3.16)
- Week 2: -6.35 (95% CI: -9.95 to -2.74)
- Week 4: -4.50 (95% CI: -8.17 to -0.84)
- Week 6: -4.27 (95% CI: -7.94 to -0.61)

Adverse events in both groups were mild. However, elderly patients and those with medical conditions were excluded from the study.

WBH increases heart rate and cardiac output with the potential risk of inducing myocardial ischaemia, heart failure or arrhythmias in susceptible patients.[1]

The wide confidence intervals reflect the small sample size. NICE suggested that a treatment-placebo difference of 3 points on the HDRS can be used as a criterion of clinical significance;[2] the lower limit of the 95% confidence interval exceeded this threshold only at the week 1 assessment. Further larger trials are needed to justify the claim that a single session of WBH provides sustained therapeutic benefit.

It is suggested that intense heat stimulates a thermosensory pathway which projects via the spinothalamic tracts and a relay in the brain stem reticular formation to the serotonergic raphe nuclei. There is evidence of reduced activity in this pathway in patients with major depressive disorder.[3]

Atypical depression is characterised by mood reactivity and comforting behaviours, in particular consumption of comfort food (chocolate, cake) and warming up behaviours such as having a hot bath.[4] WBH might be particularly effective for patients with this subtype of depression.

If we were to offer our patients a choice of antidepressants, CBT, exercise or a sauna, I suspect many would choose the latter. However, I do not think NICE is likely to endorse WBH any time soon. In the meantime, there would appear to be no harm in chocolate and hot baths for those patients who find them beneficial.

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Obstetrics and gynaecology

Use of infant simulators does not reduce teenage pregnancies

Providing teenage girls with an infant simulator doll for a few days appeared to increase rather than decrease the risk of pregnancy, in a study from Western Australia.

The Australian Virtual Infant Parenting (VIP) programme was based on the American 'Baby Think It Over' programme and was aimed at girls aged 13 to 15. A total of 66 schools were invited to participate and 57 enrolled in the study. The schools were randomised to the VIP or control group.

The 1,267 girls on the VIP programme had four educational sessions in small groups with a school nurse, and were given a comprehensive workbook and a video documentary of teenage mothers relating their experience, and instructions on the infant simulator. They were provided with an infant simulator on a Friday afternoon to experience life as a virtual mother for a weekend.

The 1,567 girls in the control group were given usual advice through the standard curriculum.

The demography of the two groups of girls was broadly comparable. Slightly more control group girls had ever drunk alcohol (54% vs 39%) and had ever had sex (18% vs 15%) than VIP programme girls. Slightly fewer had ever been responsible for a baby (52% vs 59%). Educational and socioeconomic status was higher in control group girls.

The primary endpoint was pregnancy (live birth, stillbirth or induced abortion). There were 210