Treating obesity as scientific behavioural problem

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Send response to journal:
Re: Treating obesity as scientific behavioural problem

Jain's (BMJ 9/12/05) review of interventions for treating obesity in individuals and populations concludes that current evidence indicated individually based treatments to be weakly effective and to lack a major impact on the obesity epidemic. Based on her review, she calls for public health interventions rather than individual interventions and suggests a redefinition of the concept of evidence informing public health interventions.

However, before rejecting individual behaviour change interventions, it is important to consider whether the evidence is conclusive. It is striking that Jain's quality criteria for inclusion of RCTs ignore at least two issues relevant for evidence based behavioural science; a) reference to an evidence base for the techniques used to change behaviour and b) a thorough and replicable description of the methods and techniques used in the behavioural intervention. If many studies under review fail to present this information, the conclusion might be that we need to develop a more rigorous science of behavioural interventions rather then changing the focus of research and interventions.

Following the MRC framework for complex interventions (1), clinical RCTs must be systematically based on theory and evidence. It would be unimaginable to find papers on pharmacological or surgical interventions that did not refer to an established evidence base. It is time to apply the same scientific standards to research on behaviour, taking into consideration that behaviour is a critical cause of obesity and all cause mortality (2). Many published interventions still use interventions based on common sense rather than on evidence. Progress in the behavioural prevention of obesity and disease can only be reached if evidence is systematically accumulated and used to inform interventions.

A second key condition for accumulative evidence based behavioural science is that interventions are thoroughly described in a way that allows for replication. Again, we would not expect pharmacological or surgical studies to be included in reviews if they fail to describe the interventions. If interventions are described in insufficient detail, accumulative research is impeded.

The consequences of insufficient descriptions of behavioural interventions can be illustrated with a small study conducted with 25 doctors, psychologists, social scientists and allied health professionals at the 1st UK behavioural medicine conference (3). Participants rated their confidence in being able to replicate either the pharmacological (n=13) or the behavioural (n=12) intervention from the published descriptions of two major trials on testing the effects of interventions on reduction of diabetes incidence (4,5). Participants' confidence in replicating

the behavioural interventions was low (Mean=1.3, SD=.86 on a 5 point scale from 'completely unconfident' (1) to 'completely confident' (5) whereas they felt significantly more confident about replicating the pharmacological intervention (mean=3.3, SD=.65; $t(23) = 6.45$, $p < 0.0001$).

In conclusion, Jain's proposal to shift the research focus is premature and based on evidence that meets quality standards for research design, but not for choice and replicability of behaviour change interventions. Reference to an evidence base and thorough description of the methods used in behavioural interventions are important quality criteria to progress the science of behaviour change and should be considered in reviews of the evidence. Individual as well as public health interventions can only affect behaviour if they successfully target determinants of individual behaviour. Rather than calling off the search, it is time to develop the methods to accumulate evidence on the effectiveness of evidence-based, replicable behavioural interventions on reducing obesity.

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