Evidence based practice: Have we the evidence?

By

Simon Whitaker

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Abstract

It is argued that the studies on the reduction of challenging behaviours in people with learning disabilities do not reflect clinical practice.

Along with other professionals working in the NHS there is now a drive towards the use of evidence based practice within clinical psychology (Reynolds 2000; Rowland and Goss 2000), with the implications that we should be basing our treatment methods on research evidence. It is the purpose of this article to consider if we have the evidence on which to base our practice specifically in the reduction of challenging behaviours in people with learning disabilities and then to consider the implications of this for clinical psychology in general.

The reduction of challenging behaviour in people with learning disabilities.

Challenging behaviour defined by Emerson et al (1988) as "behaviour of such an intensity, frequency, or duration that the physical safety of the person or others is placed in serious jeopardy or behaviour which is likely to seriously limit or deny access to and use of ordinary community facilities" encompasses a wide range of behaviours including aggression, self-injury and sexually inappropriate behaviours. The reduction of challenging behaviour can therefore clearly lead to an increase in the quality of life of the client and those who care for them. Challenging behaviour has consequently generated a great deal of research and referrals to clinical psychologists. Over the past decade the author has published a number of literature reviews (Whitaker 1993; 1996; 2000; 2001) on the reduction of challenging behaviour in people with learning disabilities. Although there are abundant studies showing psychological treatments can reduce challenging behaviour these studies only provide good evidence that challenging behaviour can be reduced in a small proportion of cases. This is because the conditions under which the studies were done and the nature of the challenging behaviour differ substantially from that which occurs in the real world. To be more specific, there are at least three problems with this body of research as it currently stands.

Use of single subject experimental designs. The vast majority of published studies on the reduction of challenging behaviour were done using a single subject experimental design (c.f. Whitaker 1996). Although these designs can clearly demonstrate an intervention has been effective with specific clients, under specified conditions, it is not possible to conclude that the same intervention would be effective with other clients or indeed with the same client in different conditions. This leaves open the possibility that, even if there are a lot of studies showing that a particular intervention is effective, it is only effective under a very narrow set of circumstances.

The frequency of the behaviour targeted. The second problem concerns the frequency of the challenging behaviour studied, which seems to be far higher than that seen in clinical practice.

Whitaker (1993) found that only 6 out of 74 controlled studies on the reduction of aggression in people with learning disabilities dealt with target behaviours less frequent than once a day. Whitaker (2000) later found that this applied to challenging behaviour studies in general and was not confined to aggression. He reported that 54% of the 247 treatment studies used challenging behaviours more frequent than once a minute and only 16% of studies reported on challenging behaviour less frequent than once an hour.

The high frequency challenging behaviours used in these studies contrasted with the frequency of aggression and other challenging behaviour shown by people with learning disabilities in the real world as reported in epidemiological studies. Harris (1993) found that only 22% of aggressive clients in a single health district were aggressive more than once a day; Kessler, Binzley, Arendt, Polomsky and Shah (1984) found that the average rate of aggression in a group of institutionalised people was one incident in two weeks; and Oliver, Murphy and Corbett (1987) reported that clients who show self-injurious behaviour usually did not show it more than once a day. Therefore the bulk of studies showing that psychological interventions can be effective in reducing challenging behaviours have been done using challenging behaviour of a frequency untypical of that shown by people with learning disabilities in the real world. This would not matter if it was reasonable to suppose that these interventions would be just as effective with low frequency challenging behaviour as high, however Whitaker (1996; 2000) argues that there are good theoretical reasons why these interventions may be less effective with low frequency challenging behaviour.

Conditions under which studies were done. The third problem concerns the conditions under which the studies were carried out as compared to those that apply when challenging behaviours occur in the real world. Most of the published studies were done in highly staffed and controlled settings: Whitaker (1993) found that only 4 of the 74 studies he reviewed were done in unstaffed settings. This again would not matter if staff or other carers were not necessary to run these interventions, however Whitaker (1993) has argued that many of these interventions do require a considerable amount of staff time.

It therefore seems that, although there are hundreds of published studies showing that challenging behaviours can be reduced by psychological interventions, only a very few of these studies deal with challenging behaviours typical of those which occur in the real world and which are referred to clinical psychologists. There is therefore a lack of clear evidence that we have methods that can reduce the type of challenging behaviour shown by people with learning disabilities in the situations in which they live.

Suggesting that there is a lack of evidence for the effectiveness of the procedures is not the same thing as saying that they are ineffective: absence of evidence is not evidence of absences. However, in this case there is some suggestion that the interventions may not be as effective with low frequency challenging behaviours or in unstaffed settings. In addition, having a lack of evidence for the effectiveness in one set of circumstances, when there is abundant evidence for effectiveness in different circumstances, could give the impression that the evidence was generally good. If we do not appreciate there is a problem we are not going to look for solutions to it.

Implication for Clinical Psychology in General

If there is an apparent lack of evidence for the effectiveness of psychological treatments in one area of clinical psychology, it raises the question as to what extent there is empirical evidence supporting the treatments used by clinical psychologists working in other areas. The present author does not have a sufficiently detailed knowledge of other areas of clinical practice to answer this, although, Whitaker (2000) did find that high frequency challenging behaviours were also predominantly used with clients without learning disabilities. There is therefore a possibility that there are other areas of clinical psychology where there is a lack of evidence for the effectiveness of the treatment method in the circumstances under which they are used, in spite of many published studies showing they are effective in other situations. It is hoped that people working in other fields of clinical psychology will look critically at the evidence on which they base their practice in order to see to what extent it is applicable to the situations and clients in which it is applied. If it is found that there is a lack of relevant evidence for a number of treatment methods there are implications for clinical psychology if it is to base its practice on evidence.

First, if there is reason to doubt that there is evidence supporting a particular treatment method then it is important to acknowledge this and not to use the method uncritically.

Secondly, once it has been acknowledged that a treatment method lacks evidence its use should be regarded as experimental. Therefore it would be important to evaluate its effectiveness both with individual clients with whom a psycholgist is working, and more generally to ascertain under what circumstances it is most likely to be effective.

Thirdly, it needs to considered how best to disseminate the results of clinical research. The need to do research on the effectiveness of the treatment, with the clients and in the

settings in which the treatment is usually used, may throw up a number of problems. It would not be feasible to control many of the possible influences on the target behaviour or, particularly in the case of low frequency target behaviour, to use anything other than an AB experimental design. It therefore will never be clearly demonstrated that any change was due to the intervention or to other uncontrolled variables. This could cause problems in terms of publishing the results of case studies if journals require a high standard of experimental control. However, without the publication of such studies clinicians will not be aware the evidence there is for to the effectiveness of the interventions they use. It must therefore be hoped that editors of journals recognise this and publish more applied case studies, provided it is clear in the study what its limitations are.

Fourthly, it may have to be admitted that it is not always possible to get clear and direct evidence that everything clinical psychologists do in applied settings is effective. For example, getting definitive evidence for the effectiveness of a treatment method for very low frequency yet very severe challenging behaviour, such as rape or arson, which occurs only once or twice in a client's lifetime, would be almost impossible. In the case of single subject experimental designs it could take several decades to get a baseline, which would clearly not be realistic. Therefore, even if there were no more incidences of the behaviour reported, it would not be clear if this was due to the intervention or natural fluctuations in the rate of the behaviour that occurred independently of the intervention or other factors such as maturation. It would also be very difficult to get large enough groups of similar clients for a randomised control trial and it could take decades to get a result. When treating individual cases one could never be sure that the behaviour was not observed again due to the intervention or due to a multitude of other possible influences in clients' behaviour, or that the behaviour had occurred and was not reported.

In cases like this treatment clearly needs to be give even if there is a lack of definitive evidence for its effectiveness. However, when using such methods of treatment it is important to keep in mind that there is no definitive evidence and therefore be more diligent in justifying what is done in terms of what evidence is available. For example, what has been shown to be effective with similar clients who showed similar but more frequent behaviours together with arguments as to why the frequency of the behaviour should not be an important variable.

What the author has tried to do in this article is to draw attention to the possibility that clinical psychology may not always have the evidence for the treatment methods that had previously been thought. Clearly in a brief article such as this it is not possible to discuss in detail the nature of the evidence required for the large range of treatment methods used in clinical psychology. Nor is there space to make useful suggestions as to the research that needs to be done to get further evidence. However, it is hoped clinicians will question if their practice is really based on evidence.

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