EDITORIAL

# Psychological Stress and Treatment - Research Issues

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Studies on psychological problems such as stress, depression and anxiety among different groups of population have always been carried out. However, the results vary from group to group and various factors for the variable findings have been postulated. What probably is crystal clear is that problems do exist in all groups. In this issue we have research findings indicating stress among medical students[1], lecturers, elderly[2], and laboratory technicians[3]. There are studies too to indicate that the effects of stress are increasing among all groups in the population. What is required now is to actually invest energy into finding out what causes this increase in psychological stress and how do we manage those affected and if possible prevent it.

One of the ways to establish cause is to measure the stress level. Many ways of measuring stress have been developed and in this issue we look at the validation of one of the measurement techniques[4]. It has been said that everyone is exposed to stress and yet only a small percentage seems to develop psychological symptoms. Since the environment cannot be the sole factor then the constitution of the individual is probably the culprit. To identify one of these factors, a personality assessment is probably required. One of the ways is to look at the level of state or trait anxiety. Newer methods look at more specific cognitive profiling within individuals who suffer from psychological stress more than others. Older studies even point to parents as the cause for providing poor childhood attachment. In this age where parents are busy so that they can provide "a better life" for their children, the attachment logically is less and should cause more problems to the child especially when they grow up. Most research found that childhood attachment experiences correlate with personality and cognitive factors associated with vulnerability to depression. The majority of research in this area, however, relies on self-report measures, which may be influenced by mood state and individual differences in social desirability. Regression analyses now are beginning to show that if the two factors are taken into consideration, then the association between early interpersonal experience and dysfunctional cognitive processes cannot be attributed to current depression[5].

One of the effects of psychological stress is anger. As such, more studies identifying anger and management of anger might be a useful addition to the current studies being conducted. Thus far, the management of anger has been neglected among psychiatric circles. Perhaps even medical students should be exposed to managing angry outbursts in patients or even relatives of patients. The management of anger can be summarized into the following steps;

1. Challenge and change your attitudes
2. Take control of your fears
3. Face the beast within yourself
4. Deal with backlog of unresolved anger
5. Learn to express feelings appropriately and skillfully
6. Find constructive channels for anger energy

Research into treatment per se is another big issue. For psychological stress, the treatment is psychotherapy rather than medication. At the outset, a clear distinction must be made between efficacy and clinical effectiveness in psychotherapy. Clinical trials are required to conform to a number of criteria to demonstrate reliability and validity. In particular, they usually aim to achieve a high degree of internal validity. If internal validity is low, statistical conclusional validity is compromised, and the results of a study would be hard to interpret. However, achieving internal validity requires the use of

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techniques rarely seen in everyday practice, examples of which would be studying highly selected, diagnostically homogenous patient populations, randomizing the entry of these patients into treatments, and employing extensive monitoring of both patients' progress and the types of therapy used by therapists. All of this poses a threat to external validity – the extent to which we can infer that the causal relationship can be generalized. In the present case this translates into the problem of inferring clinical effectiveness from any demonstration of efficacy.

The bridge between research trials and routine treatment is difficult to span because of the vicissitudes of biology and individual psychological differences in treatment response. Psychotherapy is a highly complex interchange in which a large number of factors interact, any one of which could be significant to outcome. Patients differ along many dimensions, in terms of their socioeconomic circumstances, the stage of their disorder, and in their premorbid psychological functioning. Therapists too vary in their personality, skills, motivation, ability to comprehend patient's problems, and adherence to treatment modalities. All these factors interact in a highly complex manner, and are subjected to systematic scrutiny in research on psychotherapy process.

Some patients will recover without intervention. As such, all clinical trials face the problem of demonstrating that treatments have a gain beyond natural recovery. Eysenck[6] was the first investigator to quantify this phenomenon, saying that although around two-thirds of patients undergoing therapy showed improvements in their functioning over a 2-year period, a similar proportion of untreated patients showed equal improvements over the same period. McNeilly and Howard[7] have conducted a probity of analysis of rates of improvement within Eysenck's treated and untreated patient samples. The analysis suggests that approximately 50% of treated patients improved within 8 weeks, in contrast to only 2% of untreated patients over this time, a result clearly running counter to Eysenck's claims. Bergin[8] estimates a range for spontaneous remission of between 30 and 40%. Most reviews are based on studies of mixed patient populations with differing diagnoses of widely varying severity and duration. As such spontaneous remission might best be seen as a reflection of the natural history of a disorder, and statements regarding outcome for any particular client group can only be made in the context of knowledge about its course.

Looking at the methodologies and strategies, there are three types of studies. The first is single case study. The focus is on the individual patient rather than a group average. It may be descriptive or quantitative. The patient usually acts as his own control. This method has been widely used by behavioral and cognitive-behavioral researchers. They have several attractive features such as; can easily be carried out in routine clinical practice, do not require facilities associated with more complex research, and can be conducted fairly quickly. However, their results can be difficult to generalize.

The second is randomized controlled trials. It explicitly asks questions about comparative benefits of two or more treatments. Patients are randomly allocated to different treatment conditions, usually with attempt to control for factors such as demographic variables, symptom severity, and level of functioning. Attempts are usually made to implement therapies under conditions that reduce the influence of variables likely to influence outcome. The design permits active treatments to be compared. Though this design has the potential to distinguish the impact of treatments there are inherent limitations: -

*Problems of control groups*
The ideal is to compare between treatment group and no treatment group, but this is rarely possible for ethical or practical reasons. The alternative of offering placebo treatment, i.e. an inactive treatment such as counseling, cannot be seen as having completely no therapeutic element.

*Length of therapy*
Setting up a randomized clinical trial is a major undertaking. Most trials limit the amount of intervention offered. This may be inappropriate for some psychotherapy.

*Generalizability*
Few randomized clinical trials monitor the implementations of psychotherapies under conditions that can be obtained in routine practice. Patients are highly selected to conform to precise categories that do not reflect the majority of routine practice patients.

*Patient preference*
Patients are not passive recipients of treatment and their preferences for differing forms of treatment may be critical to their participation in clinical trials. The bias introduced by consequent attrition from treatment

is invisible within studies, but may be particularly relevant in clinical practice.

The last strategy is open trials. This method is intermediate between single case studies and randomized controlled trials. Although entry into treatment may be governed by strict criteria, there is no control group. They reflect a more naturalistic treatment protocol. Frequently two or more treatments for the same disorder as practiced in different settings are contrasted. Given a sufficiently large data set, it may be possible to derive conclusions about the relative value of treatments even in the absence of random assignment.

In conclusion, large-scale open trials are still not available and as such, in the meantime, randomized clinical trials provide the only valid, though limited, source of evidence for the efficacy of various forms of psychotherapies. Other issues include resolving conflicts between internal and external validity in research designs. Current designs have to reach a compromise between these factors. Single case designs may come to play a more important role in this respect. When replicated across randomly sampled cases, they have considerable generalizability. They can be employed to answer most questions that concern researchers, such as, the appropriateness of a particular form of treatment, the length of treatment required to achieve a good outcome, the relative impact of treatment on particular aspects of problems, or the relevance of particular components of treatment. However, there is one critical flaw, within this strategy, client and therapist factors are difficult to study. Other issues that need further resolution include measurement techniques, follow-up periods, and problems of attrition, meta-analysis and problems associated with the use of statistical tests in psychotherapy research that requires a review of its own. Lastly, it is about time more research in the area of therapy is conducted rather than only looking at prevalence or incidence of psychological symptoms in different population groups using self-report questionnaires.


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