

Psychologist questions 'holy cow'

BY ALEX KONRAD

Imagine, for a moment, that you are the parent of a child with Attention Deficit Hyperactivity Disorder.

Now, think of the distress trying to manage the wild, impulsive behaviour that characterises children with the disorder.

Imagine also the difficulties in choosing one treatment over another. If your child were undergoing psychotherapy, surely you would want to know its success rate compared to other interventions?

Measuring and understanding the effect of interventions on psychological change was the topic of UC Applied Psychology lecturer James Neill's seminar on April 24.

Entitled *Using meta-analytic techniques to measure psychological change in primary studies*, Mr Neill's seminar discussed various types of psychological interventions, like those used to treat ADHD, and also the correlates of effective interventions.

Mr Neill, who is working towards a PhD, described how meta-analysis could be used in program evaluation and development.

The logic behind meta-analysis is

that two or more studies are better than one. The more measurements we have of something, the more likely that our research will be accurate.

As meta-analysis combines the results of several studies, it is a powerful tool in psychological research.

Meta-analysis was valuable because researchers often wanted to know the strength of an effect rather than whether it was statistically significant, Mr Neill said.

The technique was used most widely in medicine and education, but was increasingly used in psychology.

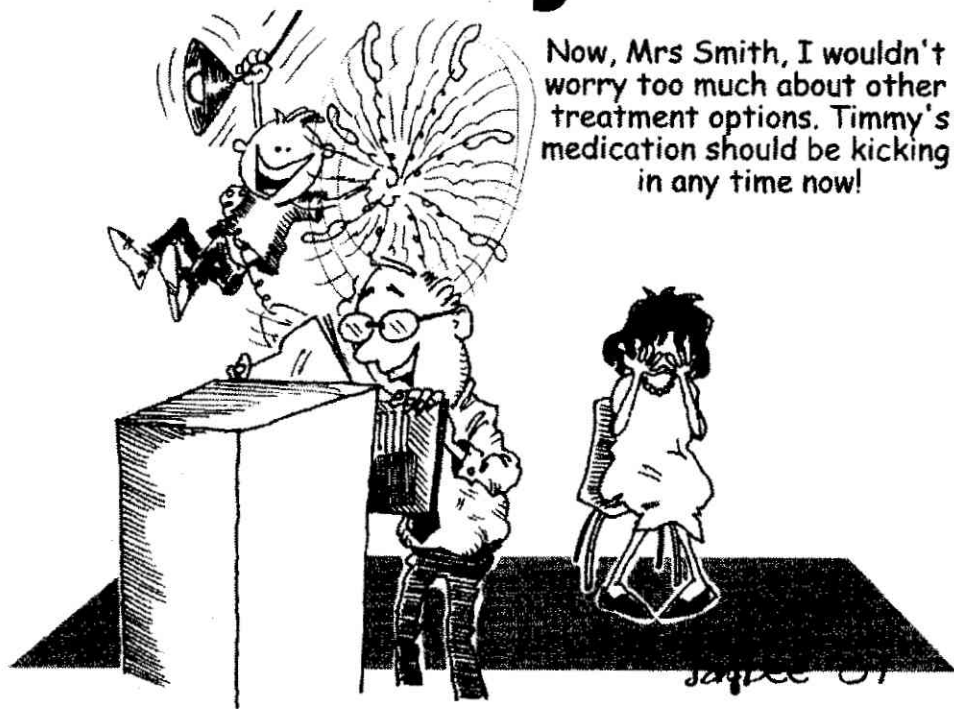
Mr Neill said meta-analysis had its origins in the 1970s with effect-sized, empirical research, but psychologists had been slow to adopt the technique.

This was due to a reliance on statistical significance testing—a "holy cow" developed by statistics pioneer Ronald Fisher (1890-1962).

Unfortunately, significance testing had undermined research, Mr Neill said.

As a result, only 60 per cent of psychological research had a chance of measuring real effects, due to Type II errors restricting a researcher's ability to draw conclusions.

Meta-analysis resulted in findings



that may have been overlooked in studies using significance testing.

Now, psychologists considered measuring the power of an intervention to be most important, Mr Neill said.

For example, Mr Neill said that in the case of ADHD, meta-analysis had shown that medical intervention, such as using drugs like Ritalin, was good at changing behaviour but not edu-

cational outcomes.

Psychological intervention was shown to be more effective in this regard, he said.

Enthusiastic about the future use of meta-analysis, Mr Neill concluded that developments in computer technology had made "mega" analyses of up to 10 million participants now possible.