

# Quality of Life

## PSYCHOLOGICAL DIMENSIONS OF HEALTH

The application of psychology to health and illness is a new and rapidly expanding area of psychology. Professor Clare Bradley specialises in the management and prevention of chronic medical disorders and her research teams include the long-established Diabetes Research Group and the more recent Renal Research Group. Their research in the diabetes field is being applied to the problems of managing chronic renal failure. Findings and methodologies developed for each of the conditions are stimulating progress in the other.

After a major longitudinal US trial in 1993 confirmed that improved diabetes control reduces the risk of long-term complications, such as blindness and renal failure, it became increasingly important to monitor the impact of diabetes and its treatment on quality of life. Questionnaires to measure impact of diabetes on quality of life are valuable for alerting clinicians to the damage that can result when diabetes management is not tailored to individuals' needs. The questionnaires can also demonstrate the value of new treatments under investigation such as inhaleable insulin that may be more expensive than injectable insulin, but may substantially improve the quality of life of many people with diabetes.

A central aspect of the work at Royal Holloway is developing questionnaires to measure psychological outcomes and processes. The Well-being Questionnaire and Diabetes Treatment Satisfaction Questionnaire, have been translated into more than 20 languages including Japanese and Arabic, and are widely used in multinational clinical trials evaluating treatments ranging from new insulins to islet-cell transplants. They were also recommended for routine monitoring of diabetes care in 1995 European guidelines to encourage psychological well-being of people with diabetes in the St Vincent Declaration Action Programme. In the UK, the British Diabetic Association is steering a National Audit Study to monitor diabetes care and funding Professor Bradley's research team to determine the shortest, useful and reliable components of a range of questionnaires for clinical and audit use.

Professor Bradley has also been influential in encouraging trialists to take account of psychological issues in the design and conduct of clinical trials. In particular, patients often have preferences for treatments, and those preferences can have important consequences for trial outcomes. In *Diabetic Medicine* in 1988 she drew attention to the limitations of conventional randomised controlled trials in evaluating new treatments for diabetes. These limitations were especially notable in then-recent trials of continuous subcutaneous

insulin infusion (CSII) pumps. Only patients keen to try the new pumps took part in the trials and those allocated to the control condition (injections as usual) were disappointed. Such disappointment could lead to misleading results due to drop-outs from the control condition or to impaired outcomes for control group patients remaining within the trial.

Writing in the *British Medical Journal* in 1989, Chris Brewin and Clare Bradley illustrated the problems of randomised controlled trials with reference to other areas of medicine and suggested a partially randomised preference trial (PRPT) design for overcoming the difficulties. Since then, the PRPT design has been used in several major trials and has stimulated interest in patient preferences in numerous areas of medicine and dentistry including obstetrics and gynaecology, and general practice, as well as diabetes and renal medicine.

Many pharmaceutical companies are supported by the team at Royal

Holloway in their use of psychological measures in their clinical trials and fund much of the translation and development work of the instruments they use. Modified questionnaires are being developed for use in renal medicine and for other conditions including depression, HIV infection and herpes virus.

### Current health psychology projects at Royal Holloway include:

- ◆ Design of quality of life measures for children with diabetes.
- ◆ Development and use of measures of knowledge of diabetes and self-care behaviour with a view to improving education of adults with diabetes.
- ◆ A Survey of Macular Disease Society members' experiences of loss of central vision.
- ◆ The psychological consequences of growth hormone deficiency in adulthood and the effects of growth hormone replacement.
- ◆ Development of measures of locus of control of diabetes and of renal failure to help select the treatment likely to be most acceptable to and effective for a particular individual.
- ◆ Attitudes towards transplantation.
- ◆ Psychological effects of screening for risk of diabetes.

