

McMillan C, Bradley C, Gibney J, Sonksen P and Russell-Jones D (2000) A comparison of the psychometric properties of quality of life and related measures (GWBI, W-BQ12, NHP, SF-36 and HDQoL) for use in research into adult growth hormone deficiency (GHD). *Quality of Life Research*, **9** (3), 324, Abstract 1352.

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Psychometric properties were evaluated and compared of measures of psychological well-being [General Well-being Index, (GWBI), and Well-being Questionnaire (W-BQ12)], perceived health status [Nottingham Health Profile (NHP), and SF-36] and a new, hormone-deficiency-specific, individualised questionnaire (HDQoL), measuring impact of hormone deficiency and its treatment on quality of life (QoL).

Data from a questionnaire survey of 157 adults with treated or untreated GHD were used to assess reliability and aspects of validity. Sensitivity to change was investigated in a randomised placebo-controlled study of 3 months' withdrawal of growth hormone (GH) from 21 GH-treated adults.

All questionnaires were highly acceptable to respondents and had high internal consistency (Cronbach's alphas for scale totals >0.9). Preliminary evidence for the questionnaires' construct validity was obtained in detection of some expected sub-group differences. In the withdrawal study, significant treatment group-by-time interactions were found for SF-36 General Health ( $p < 0.05$ ) and W-BQ12 Energy ( $p < 0.05$ ). The HDQoL found trends towards greater perceived impact of GHD on QoL in the group withdrawn from GH in some domains as expected. There were no significant findings or near significant findings for the NHP or GWBI.

The W-BQ12 is recommended in preference to the GWBI to measure well-being in adult GHD owing to its brevity, provision of subscales, better performance in distinguishing between sub-groups and superior sensitivity to change. The SF-36 is recommended over the NHP as it detected lower levels of disability than the NHP, resulting in better performance in distinguishing between sub-groups and superior sensitivity to change. The HDQoL is at an early stage of its development, but proved useful in identifying expected changes following GH-withdrawal and is recommended for further evaluation in assessing impact of GHD on QoL.