

THE IMPLEMENTATION OF A QUALITY OF LIFE INSTRUMENT (THE NOTTINGHAM HEALTH PROFILE) IN THE ASSESSMENT OF CANCER

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The benefits which result from cancer treatment are usually measured by examining the clinical or laboratory measures of disease activity or the length of patient's survival. However, little attention is paid to the effects of therapy on other aspects of the patient's social, emotional and physical status, collectively termed "Quality of life".

In this study, the Nottingham Health Profile (NHP), a two part self-administered questionnaire (Hunt and McEwen 1980), was used to determine the Quality of life in a group of patients undergoing treatment for cancer (either chemotherapy or radiotherapy). The NHP was administered on three separate occasions (before treatment, at the last treatment session and at a six week follow-up visit) to 53 patients with cancer (23 with breast cancer, 10 prostate, 7 bladder, 7 cutaneous, 3 rectum, 3 lung). Part 1 of the NHP lists a number of areas which could be affected by health (eg, occupation, home care, family life, sex life, social life etc). The second part of the NHP consists of 38 statements describing health problems in terms of energy, pain, emotions, social isolation, sleep and physical mobility. The NHP results were compared on each of the three occasions with a subjective overall assessment of health by both the patient and the consultant physician and a subjective assessment of disease severity by the consultant physician.

The NHP identified the following health problems at the initial assessment of these patients: limitations due to health in house work (43% of patients) and limitations in holidays and interests (both 37.5%) as identified by part 1 of the NHP and high part 2 scores for Energy (median = 24.0) and sleep (median=22.4). The NHP scores were significantly higher in those patients with poorer self-rated overall health (Kruskall Wallis one-way ANOVA [KW], $P < 0.05$) at all three assessments. However, disease severity and doctor rated health did not relate to patient rated overall health (KW, $P > 0.05$), or NHP scores (KW, $P > 0.05$ for all NHP scores) at any of the assessments. The mean scores and mean rank scores (in brackets) for NHP part 2 are shown in Table 1. At the final assessment, patient rated health had significantly improved (Wilcoxon's [W], $P < 0.01$) and disease severity had decreased (W, $P < 0.01$) although doctor rated health was no different (W, $P > 0.01$). NHP part 2 scores for Pain had decreased significantly (W, $P < 0.05$) but there was no change in any of the other NHP scores (W, $P > 0.05$).

Table 1: Scores for NHP part 2

NHP score	Before	After
Energy	24.0(33.7)	12.0(29.8)
Pain	7.9(21.2)	0.0(13.4)
Emotions	9.8(19.6)	7.2(14.4)
Sleep	22.4(30.0)	0.0(29.9)
Social Isol	0.0(12.9)	0.0(6.7)
Phys. Mobl.	10.6(17.9)	0.0(15.6)

The NHP was sensitive to the overall health and the predicted health problems of this group of patients with cancer, relating more closely to patient rated health than doctor assessment of health or disease severity. However, it was not sensitive to changes in patient rated overall health and disease severity which result from treatment. The NHP is of value in the assessment of health problems during clinical evaluation but may not be sensitive enough to be implemented in the long term clinical evaluation of Quality of life in cancer patients.