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Dependent Elderly
Quality of Life Indicators

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Contents

Preface

In this bibliography quality of life indicators for the frail elderly are discussed. Also, references for research using these scales can be found. More than fifty scales have been gathered. The compilation of questionnaires and articles provides for an introduction to the complicated matter of quality of life assessment. We do not intend the collection to be complete, but hope to give the reader a helping hand in a first exploration of this subject.

The articles and measurement scales have been gathered by means of the computerized catalogues of Medline (index Medicus), the Psychological Abstracts, the Nivel library, the library of the University of Utrecht (RUU), the library of the university of Limburg (RL), and the Royal Netherlands Academy of Sciences library (KNAW). The title description of each article included contains a reference to the library where the article can be found. With respect to the described scales, the following issues are briefly discussed: purpose, content, validity and reliability.

Some earlier books related to quality of life have been used for the description of some questionnaires. Among these are Ann Bowling's Measuring Health: a review of Quality of Life Measurement Scales, Bert Spilker's Quality of Life Assessments in Clinical Trials, and 'Measuring Health' by McDowell. In case of reference to one of these books, the surname of the author is mentioned.

The measurement scales have been ordered alphabetically per chapter. An author index and a subject index are added to help the user in finding more specific information or to retrieve literature.

Introduction

This bibliography concerns quality of life indicators for frail dependent elderly. One of the reasons for compiling this bibliography has to do with increasing changes and innovations in the care for the elderly. These developments need to be evaluated to assess whether or not they contribute to the quality of care. Indicators of the quality of care are (among others) patient satisfaction[1] with care and patient's quality of life. The latter is subject of this bibliography

Quality of care, patient satisfaction and quality of life
The three concepts: quality of care, patient satisfaction and quality of life will always interact at some significant level, which makes it difficult to seperate them in research and practice. There are however differences which can be illustrated by the different questions arising from each concept:
Quality of care: does the care met the professional standards of good care.
Patient satisfaction: is the patient satisfied with the care which he received?
Quality of life: does the care contribute to patient's wellbeing and health? In other words, the effects of care on the 'quality of the patient's existence', or on the 'quality of life'. This in fact is the ultimate goal of health care.

Purpose of quality of life indicators
The purpose of quality of life measurements can roughly be divided into two kinds. First, there are those which are concerned with individual decision-making. For example, a patient can be confronted with the choice to undergo a rather heavy treatment or a hazardous operation when only slight progression can be attained afterwards. So a patient has to weight the gains of treatment against the 'costs'. One can imagine for example the difficulty a cancer patient will have in deciding whether or not to follow a burdening treatment.
Secondly, quality of life is measured in medical research for a better understanding of the effects of certain treatment methods. The outcomes of clinical trials in respect with the quality of life might be important for future decision-making, i.e. either to stop or to further develop these methods. The results of such studies contribute to decision-making in health management, and are used in cost-effect analysis in health care.

Dependent frail elderly
Increasingly, quality of life measurement scales are being used in health care to assess outcomes of care. Recently some reviews of measurement scales have been published by McDowell[2], Spilker[3], and Bowling[4] These reviews contain a broad range of measurement scales for a variety of diseases or medical interventions concerning all age groups. This bibliography contains those measurement scales that can be used for measuring the quality of life in the elderly.

For this age group three considerations are important. First the individual differences in health among the elderly are much larger than in any other age group. Whereas some of them are quite capable of functioning very well both physically and mentally up to a very high age, others require care and help. Many elderly people suffer from dementia, rheumatism, cancer or cardio- and cerebrovascular diseases. This implies that conclusions regarding the quality of their lives must be of a much more individual nature as compared to any other age group.
Secondly, quality of life is related to the degree of personal (in)dependency. Quality of life indicators for the elderly should therefor take into account the many elderly who remain in residential homes, nursing homes or hospital wards. The resulting dependency undoubtly influences the quality of life.
Thirdly, old age brings with it bigger risks of losing both physical and mental powers than any other age group does. This means that these very illnesses will carry more weight in elderly persons' perceptions of quality of life compared with younger people. In short, not all existing measurement scales are appropriate for elderly people.
This bibliography reviews measurement scales which specifically have been developed for the elderly and those that, although not specifically meant for the elderly, are being used frequently in gerontological research.

Because the concept 'quality of life' is a broad and complex one, a brief survey will be given of the meaning and conceptual understanding of quality of life and of the operationalization of this concept. In this bibliography the common term 'quality of life' has been used. It whould however be more precise to speak about health-related quality of life or patient's quality of life.

Quality of life: five approaches
Though everyone will have a certain notion of what quality of life means, it remains a rather vague idea, hard to define, not in the least because people differ about their perception of what a good life should be like. In conceptualizing 'quality of life' at least five approaches can be distinguished which have contributed a great deal to the current understanding of quality of life[5]:
- the psychological approach
- the time trade-off or utility concept
- the community centered concept
- the reintegration concept
- Calman's gap principle.

In the **psychological approach** quality of life depends on the patient's perceptions of the disease, i.e. how he or she experiences it. This includes perceptions of the symptoms, of possible functional handicaps, of the manner in which the environment is able to cope with the patient's disease, etc. Traditionally, physicians tend to concentrate on the outcome and knowledge of the course of the disease in stead of the way in which patients are experiencing their disease.

The **time trade-off** or **utility concept** has to do with the choices a patient should make between quality and quantity of life. For example, one may choose to go through a risky operation in the hope of maintaining certain functional capacities, rather than a less risky operation with a guaranteed loss of some of these capacities. Another example is the choice patients may have to make about life sustaining measures at the endstage of diseases. In the utility approach, the concept QUALY's is used to denote 'quality adjusted life years'.[6]

In the **community centered** concept of Ware[7], quality of life has everything to do with the effects illnesses have on one's social position in the community. The variables that influence the quality of a person's life are grouped in concentric circles. The center contains the physiological variables, for example outcomes and measurements performed by physicians. Other factors are personal functioning, psychological distress and well-being, general health perception and social functioning respectively. A definition by Mendola/Pelligrini illustrates this approach: 'Quality of Life is the individual's achievement of a satisfactory social situation within the limits of perceived physical capacity'.

In the **reintegration concept** the amount of activities which a patient is able to perform both before and after treatment or during the time of his or her disease is reviewed. This amounts to the study of changes in the patterns of the patient's daily pursuits. Included are for example mobility, self-care abilities, daily activities, recreational activities, social activities, family roles, personal relationships, presentation of self, etc.

The last concept involves Calman's[8] definition of quality of life as the **gap between expectations and achievements**. This approach departs from what the patient himself considers to be important (in contrast with objective standards of functioning). The exact nature of patient's expectations and achievements are not considered to be important; it is the difference between them, i.e. the gap, that counts.

Quality of life: multidimensional concept

The starting point of quality of life indicators are the patient's perceptions about his or her own life. In the measurement scales these perceptions concern a wide range of factors which are considered to be important within the realm of quality of life. Though every classification is to some extent an arbitrary abstraction of a personal view of quality, there is some consensus in the literature about five major domains: 1. the patient's physical status and functional abilities. 2. the psychological status and well-being of a patient. 3. his or her social life, interactions with family and friends. 4. a patient's somatic sensations, and 5. his or her economic status. The economic status is often included in U.S. literature but is lacking in European literature.
Assessment of the patient's physical status and functional abilities tends to approximate mostly the outcome measures which physicians traditionally use but some studies have shown that their findings not always agree with the opinions of the patient. In most studies of the assessment of psychological status and well-being the emphasis is on anxiety, depression and fear. These

three items are closely related to those included in the social life domain, concerning a person's relationships with friends, relatives and caregivers in his own living environment.

The fourth domain concern the somatic sensations, for example pain, nausea, shortness of breath.

MAIN DIFFERENCES BETWEEN QUALITY OF LIFE SCALES

Mono- or multi-dimensional. Some measurement scales only cover one dimensions of the quality of life concept, for example only functional ability or depression, or social integration, while other scales cover several dimensions.

As a consequence some researchers tend to use the term quality of life in a much broader sense than others do, which gives rise to inaccuracy and confusion. In some cases a measurement instrument which is mainly directed toward measuring the functional (dis)abilities of elderly people is inadvertently referred to as 'measurement instrument for measuring the quality of life', whereas other research into the well-being of the elderly includes a much broader range of aspects.

Disease specific or general scales: some measurements are clearly directed towards a specified target group, for example cancer patients or patients who suffer from rheumatism. These measurement instruments will accordingly emphasize quality-of-life aspects that are directly connected with the specific symptoms of that particular disease. Other instruments are more global in character. Sometimes these global instruments are supplemented with a restricted number of disease specific items.

Single or multi-item instruments. There are single item measures: self-report instruments which use one single questions but there are also questionnaires using over a hundred items. Of course, the time required to complete the questionnaire varies accordingly.

Patient or caregiver: In some instruments patient's own opinion and answers are used, while other instruments are based on opinions or assessments of physicians, nurses or other health care personnel. When patients are unable to answer questions for example in psychogeriatric care, answers of the partner or family are used as proxy indicators.

Questionnaire or interview: Scales can be based on questionnaires, interviews or observational data.

CONTENTS OF THE BIBLIOGRAPHY

Physical functioning, Global health, Life satisfaction, Psychological well-being

Although much overlap between measurement scales exist, the bibliography is organized in four chapters, based on the actual subject of measurement:

1. Physical functioning
2. Global health
3. Life satisfaction
4. Psychological well-being

Physical functioning

The subject of chapter one is functional assessment. Although the scales in this chapter often enclose much more dimensions, they have in common their focus on physical functioning. Measures of physical functioning in general focus on a person's restrictions or lack of ability to perform certain activities in a manner or within a range considered normal for a human being, i.e. self-care (like eating or bathing), mobility (getting in and out of bed, going up or down the stairs, etc.) and other physical activities. They can be generic measures, like Katz' Activities of Daily Living Scale, or disease specific, like the Arthritis Impact Measurement Scale.

Global health

One of the most well-known measurement scales of global health is the Sickness Impact Profile. This multidimensional scale assesses health status as an outcome of health care. It covers a broad range of dimensions within fourteen categories of items, social interaction, sleep and rest, mobility, communication, emotions and so on. The assessments focus on an individual's subjective perception of his or her health in a very broad sense. Other famous scales in this field are the Nottingham Health Profile and the McMaster Health Index Questionnaire.

Life satisfaction

Measures of life satisfaction and morale, in contrast with more global quality of life instruments, are more specifically directed first to a person's satisfaction with life, i.e. the discrepancy between expectations and achievements, and secondly to the way a person responds to his or her own life situation, i.e. how someone deals with problems, whether they are generally optimistic or pessimistic, etc. The difference with scales that measure psychological well-being are very subtle and sometimes hard to distinguish. But in some sense the life satisfaction scales tend to more emphatically connect a person's life with their state of mind. Examples of these instruments are Neugarten's Life Satisfaction Scale and Bradburn's Affect Balance Scale.

Psychological well-being

With respect to measures of psychological well-being, some scales that are used in the elderly are aimed at the detection of psychiatric disorders like depression, anxiety and dementia. In fact, roughly speaking two kinds of these psychological well-being scales do exist, namely those that measure only cognitive capacities and those that measure the psychological health.

The majority of these scales, however, are not developed for diagnostic purposes but concentrate on the severity and the consequences of the disorders. Some instruments are very short mental-confusion scales, e.g. the Mental Status Questionnaire and the Abbreviate Mental Test, consisting of only ten questions about a person's year of birth, the present date, etc. Others, like the Beck Depression Inventory, and the Hospital Anxiety and Depresion Scale, are more complicated and include a variety of aspects related to psychiatric disorders.

We hope this bibliography may contribute to the attention given in research and practice to the quality of life of dependent elderly.

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Methods for assessing patient satisfaction with primary care: review and annotated bibliography.
Nivel 1992.

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Measuring Health: A guide to rating scales and questionnaires.
Oxford University Press: New York 1987.

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Quality of life assessments in clinical trials.
Raven Press: New York 1990.

4. Bowling, A.
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Open University Press: Buckingham 1991.

5. Schipper, H., Clinch, J., Powell, V.
Definitions and conceptual issues.
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Raven Press: New York 1990

6. Donaldson, C., Atkinson, A., Bond, J., Wright, K.
QUALY's and long-term care for elderly people in the UK: scales for assessment of quality of life.
Age Ageing; 17, 1988, no. 6, p. 379-387

7. Ware, J.E.
Conceptualizing disease impact and treatment outcomes.
Cancer; 53, 1984, p. 2316-2323

8. Calman, K.C.
Quality of Life in cancer patients - An hypothesis.
Journal of medical ethics; 10, 1984, p. 124-127

1. Functional Assessment.

ARTHRITIS IMPACT MEASUREMENT SCALE

Source:

Meenan, R.F., Gertman, P.M., Mason, J.H.
Measuring health status in arthritis: the Arthritis Impact Measurement Scale.
Arthritis and Rheumatism; 23, 1980, p. 146-152

Purpose:

The Arthritis Impact Measurement Scale was designed for the measurement of the outcome of care for arthritic patients. It is a self-administered scale relating to physical, emotional and social issues.

Description:

This instrument consists of 45 items which are divided into nine parts dealing with: self-care, mobility, travel, body movement, home management, medical condition, anxiety, depression and social interaction. Some questions have to be answered with a clear yes or no, others are scaled. Most questions refer to problems experienced during the last month. The test is self-administered and takes about 15 minutes to complete.

Validity and reliability:

The Arthritis Impact Measurement Scale (AIMS) has been extensively tested for validity, tests were repeated on a variety of subjects in different demographic, functional and diagnostic categories. Most studies report reliability coefficients that meet the criteria or even exceed them. According to Meenan et al.[1] (1982) the AIMS scales higly correlate with measurement of health by physicians, and specific scales correlate highly with standard measures of physical function.

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[1] Meenan, R.F., Gertman, P.M., Mason, J.H., Dunaif, R.
The Arthritis Impact Measurement Scales: further investigations of a health status measure.
Arthritis & Rheumatism; 25, 1982, p. 1048-1053

List of references:

Selman, S.W.
Impact of total hip replacement on quality of life.
Orthop-Nurs; 8, 1989, no. 5, p. 43-49
KNAW

> This retrospective, descriptive study was designed to investigate the impact of total hip replacement on the quality of life for those persons who have suffered from osteoarthritis of the hip. Forty six subjects from a population of clients of eight orthopaedic surgeons in a south-eastern state of the USA agreed to participate in the study. The subjects were predominantly white, married females with varied age. The impact of having a total hip replacement was measured by the participant's perception of change in four areas: physiologic function, self-concept, role function, and interdependence. A modified version of the Arthritis Impact Measurement Scales (AIMS) was used to measure change. The results showed positive change in all four variables and in overall satisfaction with having a total hip replacement.

BARTHEL INDEX

Source:

Mahoney, F.I., Barthel, D.W.
Functional evaluation: the Barthel Index
Maryland State Medical Journal; 14, 1965, p. 61-65

Purpose:

The Barthel Index was designed as a measure of independence in patients with neuromuscular or skeletal disorders. It was intended for long-term patients in hospital but has also been used to identify patients who could benefit from a rehabilitation program, to predict length of stay, estimate prognosis, anticipate discharge outcomes, and as an evaluative instrument.

Description:

This instrument contains ten different scales concerning the following subjects: feeding, moving from wheelchair to bed and vice versa, making one's toilet, getting on and off the lavatory, bathing oneself, walking on a level surface, driving a wheelchair, ascending and descending stairs, dressing and undressing, continence of bowels, controlling bladder. For every item, a score of zero is given when the patient cannot meet the defined criteria, and 10 or sometimes (depending on the item) 15 points can be given when the patient does not have any trouble with the item in question. The rating scale is completed by nurse, physiotherapist or doctor by means of medical records or direct observation.

Validity and reliability:

There have been many studies of the predictive validity of the Barthel Index. In two studies of stroke-patients the percentages of patients who died within six months of admission fell significantly ($p<0.001$) as the Barthel scores at admission rose.[2] Among survivors, intake scores also predicted the length of stay and the patient's subsequent progress as rated by a physician. Thirty-six percent of those scoring 0 to 15 points at admission were later said to have improved, whereas 77 percent of those scoring 60 to 100 were judged to have improved.[3] Evidence on the correlation validity of the Barthel Index comes mainly from correlation with the PULSES Profile; the Pearson-coefficients range from -0.74 to -0.90 ($p<0.001$). (McDowell)

List of references:

Eagle, D.J., Guyatt, G.H., Patterson, C., Turpie, I., Sackett, B., Singer, J.
Effectiveness of a geriatric day hospital.
Canadian Medical Association Journal; 144, 1991, no. 6, p. 699-704
RUU

> The objective was to determine whether there is a difference in the quality of life between elderly patients managed in a day hospital and those receiving conventional care. A randomized controlled trial was designed in a geriatrician referral-based secondary care unit. Patients were assessed upon entry to study, and at 3, 6 and 12 months afterwards. The subjects consisted of 113 consecutively referred elderly patients with deteriorating functional status, believed to have rehabilitation potential. 55 were assessed and treated by an interdisciplinary team in a day hospital (treatment group), and 58 were assessed in an inpatient unit or an outpatient clinic or were discharged early with appropriate community services (control group). The outcome measures used were the Barthel Index, the Rand Questionnaire, the Global Health Questionaire and the Geriatric Quality of Life Questionnaire (GQLQ). Eight study subjects and four control subjects died, but this had no significant consequences for the research findings. Functional status deteriorated over time in the two groups. Although the difference was not significant there was less deterioration in the control group. The GQLQ scores indicated no

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[2] Wylie, C.M., White, B.K.
A measure of disability.
Archives of Environmental Health; 8, 1964, p. 834-839

[3] Wylie, C.M.
Gauging the responce of stroke patients to rehabilitation.
Journal of the American Geriatric Society, 15, 1967, p. 797-805

significant difference between the two groups in the ability to perform daily living activities and in the alleviation of symptoms over time but did show a trend favouring the control group. The GQLQ scores did indicate a significant difference in favour of the control group in the effect of treatment on emotions ($p < 0.009$). Conclusion: The care received at the day hospital did not improve functional status or quality of life of elderly patients as compared with the geriatric outpatient care.

Harwood, R.H., Ebrahim, S.
Long-term institutional residents: does the environment affect outcomes?
Journal of the Royal College of Physicians of London; 26, 1992, no. 2,
p. 134-138
Nivel (C 1950)

Quality in institutional care is frequently questioned, yet there has been little research on the effects of different environments on important outcomes such as disability and quality of life. These outcomes are difficult to measure, and randomised trials difficult to perform. An alternative to formal trials is to assess the effects of 'natural experiments' arising from service reforms. The researchers studied the relocation of 95 residents from the continuing-care wards of a hospital which closed to two different ward environments: one new and purpose built, the other refurbished maternity wards. Deaths and changes in disability over 12 months from pre-relocation measurements were recorded, using the Barthel Index and the Clifton Assessment Procedure for the Elderly (CAPE). No advantage could be shown for the new wards in terms of changes in disability. In fact, Barthel scores improved more on the refurbished wards (the difference being 2.5 points at 4 months, p less than 0.0005). Changes in CAPE scores did not differ between the wards. Mortality at 1 year was 44%, with no significant difference between the ward types. Logistic regression analysis and multivariate analysis of variance showed this effect to be independent of initial differences between the groups. Efforts to improve quality in long-term care for the elderly are not wholly dependent on the provision of expensive new facilities.

CAPE COGNITIVE ASSESSMENT RATING SCALE

Source:

Pattie, A.H., Gilleard, C.J.
Manual of the Clifton Assessment Procedures for the elderly.
Sevenoaks, Hodder and Stoughton: 1979.

Purpose:

This scale was developed for use with elderly people living in institutions and focuses heavily on the behavioural problems of those who are mentally infirm.

Description:

This scale consists of two schedules, designed to measure behaviour and cognitive performance. It is known as the Behaviour and the Cognitive Assessment Scale. Among the 18 items, four relate to mobility, continence and activities of daily living. The remaining items relate to confused behaviour. The questions have to be completed by a third party who knows the respondent well. The rater is instructed to rate people according to their level of current functioning, and to take into account their behaviour over the past two weeks. The whole test can take between five to thirty minutes, depending on mental and functional abilities of the respondent.

Validity and reliability:

Black et al.[4]compared the diagnostic ability of the CAPE in relation to dementia, with the diagnosis made by the computer program AGECAT and a clinical diagnosis made by a psychiatrist. The sample was an elderly group of patients from a general practice. The authors reported that the sensitivity of the CAPE was low, probably because it identified only the more severe cases. The CAPE only detected about half the number of known cases. In relation to behaviour, Pattie and Gilleard have reported in their manual that the CAPE can discriminate between elderly people requiring different degrees of help, with different levels of social adjustment following admission to a residential home, and between mentally infirm people who survive and those who die. They also report inter-item correlation, and all are fairly high. This suggests that items are consistent and are measuring the same dimensions of dependency. Inter-rater reliability for the four sub-scales was tested on psychiatric and psychogeriatric patients and people in residential homes for the elderly. The correlations were all 0.70 or higher with the exception of the correlation for 'communication difficulties' which was low. Tests for inter-rater reliability for the total scale showed wide variations. (Bowling)

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[4] Black, S.E. et al.
Prevalence rates of dementia in an ageing population: are low rates due to the use of insensitive instruments?
Age and ageing; 19, 1990, p. 84-90

List of references:

Bowling, A., Formby, J., Grant, K., Ebrahim, S.
A randomized controlled trial of nursing home and long, stay geriatric ward care for elderly people.
Age-Ageing; 20, 1991, no. 5, p. 316-324
Nivel (C 1951)

> This paper reports outcome data on mental and physical ability levels, mortality and accident rates, from a randomized controlled trial evaluating health authority funded nursing home and long-stay geriatric ward care in one inner London health district. There were no differences between settings in mortality rates, although respondents randomized to the nursing homes deteriorated more rapidly in overall, mental and functional ability levels. Previous analyses reported that they also experienced a higher accident rate than respondents in the wards. However, observational data from the evaluation clearly indicated that quality of life in the homes was superior to that in the wards. We conclude that the more rapid physical decline and greater risk of accident in the nursing homes have to be balanced against an inferior quality of life in the hospital, and that a judgement is not easy to make on behalf of other people.

Smith, A.H., Ballinger, B.R., Presly, A.S.
The reliability and validity of two assessment scales in the elderly mentally handicapped.
British Journal of Psychiatry; 138, 1981, p. 15-16
Nivel (C 1952)

> The authors administered the Clifton Assessment Schedule (CAS) and the Shortened Stockton Rating Scale to 38 elderly, mentally handicapped patients. The interrater reliability was high, and the CAS was found to be a useful measure of cognitive ability. The tests measure different features of patients, but both correlated significantly with estimated levels of independence.

CRICHTON ROYAL BEHAVIOR RATING SCALE

Source:

Robinson, R.A.
The organization of a diagnostic and treatment unit for the aged in Giegy, United Kingdom.
Psychiatric Disorders in the Aged.
Manchester, World Psychiatric Association.

Purpose:

The Crichton Royal Behavior Rating Scale was developed for use with elderly people living in institutions and intents to measure functional ability and mental disturbance.

Description:

This scale contains ten items. Five of them deal with functional ability (mobility, feeding, dressing, bathing, continence) and five deal with mental disturbances (memory, orientation, communication, co-operation, restlessness). The second scale can be used independently of the functional ability scale. The questionnaire is completed by a third person who knows the respondent well. The interviewer is expected to probe and ask for examples of behaviour before a classification is made. The amount of time needed for interviewer assessment without the structured questions, is approximately three minutes, the structured questions take about seven to ten minutes.

Validity and reliability:

Thompson[5] used factor analysis to assess the construct validity of the measurement scale. She reported that the ten items reflect two dimensions of dependency: capacity for self-care and ability for walk. Total scale scores have been compared[6] with independent clinical assessments and the modified Roth-Hopkins mental state (correlations between 0.75 and 0.82). Thompson assessed the internal reliability of the capacity for self-care dimensions of the scale. She reported that reliability can be increased by removing the items relating to feeding, restlessness and co-operation, and by treating mobility as a seperate dimension. Wilkin and Jolley[7] examined interrater reliability, using two interviewers to assess the same informant, the correlation obtained was greater than 0.90. (Bowling)

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The reliability of a schedule for assessing dependency in the elderly in residential care.
Manchester: Working papers in applied social research, no. 2, 1984

[6] Vardon, V.M., Blessed, G.
Confusion ratings and abbreviated mental test performance: a comparison
Age and ageing; 15, 1986, p. 139-144

Wilkin, D., Thompson, C.
User's guide to dependency measures for elderly people.
Sheffield social services monographs 1989: research in practice.
University of Sheffield, joint unit for social services research.

[7] Wilkin, D., Jolley, D.J.
Behavioural problems among old people in geriatric wards.
Research report no. 1, 1979
Psychiatric Unit, University Hospital of South Manchester.

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A randomized controlled trial of nursing home and long-stay geriatric ward care for elderly people.
Age-Ageing; 20, 1991, no. 5, p. 316-324
Nivel
-abstract on page 6-

Donaldson, C., Atkinson, A., Bond, J., Wright, K.
QALYS and long-term care for elderly people in the UK: scales for assessment of quality of life.
Age-Ageing; 17, 1988, no. 6, p. 379-387
Nivel (C 1953)

> QALYs (quality adjusted life years) have been developed in the UK as a tool for comparing the outcome of health care procedures in a single index over time. This tool can then be used, along with information on costs of procedures, in decision-making about health service resource allocation. It is shown that the attributes of disability and distress, on which QALYs are presently based in the UK, are insensitive to changes in the health status of elderly people in long-term care when compared to other measures of quality of life which are frequently used in studies of older people. Thus, if the use of QALYs increases, they should be based on attributes appropriate to the groups studied, otherwise certain groups may be discriminated against in health service resource allocation owing to the use of an insensitive measure of outcome.

EORTC QUALITY OF LIFE QUESTIONNAIRE

Source:

Aaronson, N.K., Beckmann, J.H., eds.
The quality of life of the cancer patient.
New York: Raven Press, 1987, p. 63-82

Purpose:

The EORTC (European Organization for Research and Treatment of Cancer) measurement scale is a cancer-specific assessment scale. The scale predominantly intents to measure physical signs and symptoms or functional states, and does not address treatment regimen or disease-specific issues.

Description:

The EORTC consists of items concerning different areas of disease and treatment consequences that are common to a wide range of cancer sites. Items that were hypothesized to measure aspects of the same quality of life domain were aggregated into scales. Scales were constructed for physical functioning, role functioning, emotional functioning, social functioning, and overall health and quality of life. In addition, two scales were constructed from cancer symptom items on fatigue, general malaise and nausea/vomiting. Single items were included for assessment of financial impact, alertness behaviour and various common physical symptoms of cancer. Thirteen additional items do specifically address disease symptoms in lung cancer and treatment side-effects. The original questionnaire contains 42 questions, but also a modified 36 questions variant exists.

Validity and reliability:

Measures of internal consistency (Cronbach's alpha) ranged from 0.69 for social interaction to 0.95 for symptoms of lung cancer. The validity of the overall tool was established in three ways. First a series of factor analysis were performed with representative items from each of the variables. If these items loaded in different factors, then this suggested the presence of construct validity. Next, a multitraite scaling technique was used to test for item-discriminant validity, and the results supported the distinctiveness of the scales studied. Finally, intercorrelations between each of the scales were also performed revealing correlations ranging in strength from 0.21 to 0.58, suggesting modest but distinct relationships between the variables. (Spilker)

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Quality of life in patients with muscle-infiltrating bladder cancer and hormone--resistant prostatic cancer.
European Urology; 16, 1989, no. 5, p. 335-339
Nivel (C 1954)

> A questionnaire, filled in by the patient, was used to assess the quality of life of 65 patients with previously untreated bladder cancer and of 67 patients with hormone-resistant prostatic cancer. This study examines the initial questionnaire filled in before any nonsurgical treatment had been started in the patients referred to an oncological ward. The aim was to identify domains in which distress was frequent, in the hope of indicating where treatment directed forward improving the patients' quality of life should be directed. The questionnaires yielded reliable and valid data. Among bladder cancer patients micturition disturbances and sexual problems dominated. Bone pain, fatigue, sexual disturbances and interruption of social relationships were the most frequent and most

severe complaints of prostatic cancer patients. It was concluded that routine quality of life evaluation by self-assessment questionnaires is possible in a clinical ward provided some assistance by the nursing staff is available. Future treatment in patients for whom palliation is the main goal of therapy should be concentrated on improving the quality of life in areas where distress is evident. The effect of treatment on quality of life could be monitored by similar questionnaires.

Bergman, B., Sullivan, M., Sorenson, S.
Quality of life during chemotherapy for small cell lung cancer. II. A longitudinal study of the EORTC Core Quality of Life Questionnaire and comparison with the Sickness Impact Profile.
Acta Oncology; 31, 1992, no. 1, p. 19-28
Nivel (C 1955)

Sixty-two patients with small cell lung cancer, 36-80 years of age, who were receiving chemotherapy during a maximum of one year, were consecutively included in a study of quality of life during treatment. An interim version (C-36) of the EORTC Core Quality of Life Questionnaire (QLQ) was applied for quality of life assessment prior to treatment and every third month during the treatment period. The assessments were related to clinical variables (performance status and tumour response), and compared with results from assessment with the Sickness Impact Profile (SIP). The QLQ was sensitive to differences in clinical status and responded to clinical change over time. In general, the pattern of correlations with SIP lends support to the construct validity of the QLQ. However, some questions arose from the comparison with the SIP: The QLQ emotional functioning did not change in concordance with the SIP, and assessment of social functioning was not optimal prior to treatment. The questionnaire was well accepted by the patients. According to the authors, the EORTC QLQ C-36 constitutes a promising step in the development of a feasible standard instrument for quality of life assessment in cancer clinical trials.

Jones, E., Lund, V.J., Howard, D.J., Greenberg, M.P., McCarthy, M.
Quality of life of patients treated surgically for head and neck cancer.
Journal of Laryngology and Ontology; 106, 1992, no. 3, p. 238-242
Nivel (C 1956)

The quality of survival of 48 patients treated surgically for head and neck cancer was assessed using a problem-orientated self-administered questionnaire. The questionnaire was based on the European Organization for Research into the Treatment of Cancer (EORTC) core questionnaire to which a specific head and neck module was added. The following domains were studied: pain, fatigue, physical symptoms (gastrointestinal and 'other'), functional activity, psychological symptoms, overall physical condition and overall quality of life. For the analysis, five groups of patients were considered: laryngectomy patients (n = 15), pharyngolaryngoesophagectomy patients (n = 5), craniofacial procedure (n = 11), 'other operations' (n = 9) and patients with disease recurrence (n = 8). Each group identified different problem areas. Laryngectomees and 'other operation' patients reported relatively few problems, whereas patients with disease recurrence described difficulties in all of the domains examined. Symptoms of fatigue were common. The information collected in this way may facilitate improved rehabilitation and thus better quality of survival.

FUNCTIONAL STATUS INDEX

Source:

Jette, A.M., Deniston, O.L.
Inter-observer reliability of a functional status assessment instrument.
Journal of Chronic Diseases; 31, 1978, p. 573-580

Purpose:

The Functional Status Index was developed for the evaluation of a geriatric athritis program. In this program the researchers had the intention to improve the quality of life of elderly arthritic patients, to be measured by the mentioned scale.

Description:

The full length version of this scale includes 45 questions on activities of daily living. The shortened version contains 18 different items, which can be subdivided into five groups: mobility (walking inside, climbing stairs, chair transfers), activities of the hands (opening containers, writing, dialing a phone), personal care (washing all parts of the body, putting on pants, putting on a shirt, buttoning a shirt), home chores (doing laundry, reaching into low cupboards, doing work in the garden, vacuum cleaning a rug) and interpersonal activities (driving a car, visiting family or friends, attending meetings, performing a job).

Validity and reliability:

Deniston and Jette[8] examined the validity of the Functional status Index with a group of elderly people who suffer from arthritis and found that scores in the dimensions of dependence, difficulty, and pain on performance of Activities of Daily Living were positively correlated with client reports of joint conditions (respectively r=0.32, r=0.33, r=0.37), ability to deal with their arthritis and attendant problems (respectively r=0.18, r=0.28, r=0.20), and number of 'good days'. Instrument scores did not correlate with professional assessments of clients' joint condition or their ability to deal with arthritis.

List of references:

Liang, M.H., Fossel, A.H., Larson, M.G.
Comparisons of five health status instruments for orthopedic evaluation.
Medical Care; 28, 1990, no. 7, p. 632-642
Nivel

> This study represents a long-term effort to find optimal techniques for evaluating outcome in patients who have undergone total joint arthroplasty. The sensitivity of five health status questionnaires was studied in a longitudinal evaluation of orthopedic surgery. The questionnaires (Arthritis Impact Measurement Scales [AIMS], Functional Status Index [FSI], Health Assessment Questionnaire [HAQ], Index of Well Being [IWB], and Sickness Impact Profile [SIP]) were administered to 38 patients with end-stage arthritis at three points in time: two weeks before hip or knee arthroplasty, and at three-month and 12- to 15-month follow-up. Response values (i.e., changes within patients) were calculated on four scales: global health, pain, mobility, and social function. By the three-month follow-up, most instruments detected large mean responses in global health, pain scores, and mobility. Smaller changes on these scales were found between three and 12 to 15 months. Social function showed small to modest gains at successive follow-ups. Standardized response means were calculated to assess sensitivity to detect change. Confidence intervals for these indices were constructed using a jackknife procedure, and significance tests were performed by pairing selected indices. Finally, the study projected sample sizes required to assess a new therapy, using each response. These statistical tools facilitated comparisons among instruments and may prove useful in other settings.

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[8] Deniston, O.L., Jette, A.
A functional Status Assessment Instrument: validation in an elderly population
Health Services Research; 15, 1980, no. 1, p. 21-35

HEALTH ASSESSMENT QUESTIONNAIRE

Source:

Fries, J.F., Spitz, P., Kraines, R.G., Holman, H.R.
Measurement of patient outcome in arthritis.
Arthritis & Rheumatism; 23, 1980, no. 2, p. 137-145

Purpose:

The Health Assessment Questionnaire was originally designed for all illnesses and not only for use in rheumatic diseases. Now it is an arthritis-specific instrument with the accent on activities of daily living.

Description:

The questionnaire specifies eight areas of daily function, each with two or three activities. These areas are dressing and grooming, getting up in the morning, eating, walking, hygiene, reach, grip and activity. The patient reports his or her difficulties in performing each activity during a week, and the degree of difficulty is translated into a score from 3 (unable to do) to 0 (without difficulty). The overall score ranges from 3.00 (worst) to 0. The questionnaire should be completed within ten minutes.

Validity and reliability:

The Health Assessment Questionnaire has been validated in a lot of studies. Validation studies have been replicated, primarily in rheumatoid arthritis and osteoarthritis patients. There was a strong agreement between the Arthritis Impact Measurement Scale and the Health Assessment Questionnaire. Spearman's rho was 0.91 for the disability-related scales, for the pain-related scales Spearman's rho was 0.64. In a combined factor analysis of the AIMS and the HAQ scales, the factor loadings for physical disability were quite close between measures: physical, 0.88 (AIMS) and 0.85 (HAQ); and pain, 0.87 (AIMS) and 0.84 (HAQ). On the other hand, the interdimensional correlations of HAQ-disability compared with HAQ-pain (rho=0.30), AIMS-pain (rho=0.39), and AIMS-psychological (rho=0.23) were weak. Disability was also weakly correlated with the Beck Depression Inventory (r = 0.37) and the Hamilton Interviewer Rating Scale (r = 0.24) on 107 rheumatoid arthritis patients.[9] So disability as measured by the Health Assessment Questionnaire is an attribute distinct from pain or psychological distress. (Spilker)

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[9] Peck, J.R. et al.
Convergent/discriminant validity of the HAQ disability index in rheumatoid arthritis using a multitrait-multimethod matrix.
Arthritis & Rheumatism; 30, 1987, S 193

List of references:

Bombardier, C., Raboud, J.
A comparison of health-related quality-of-life measures for rheumatoid-arthritis research.
Controlled Clinical Trials; 12, 1991, no. 4, p. 243-256.
Nivel (C 1957)

> Twenty-eight instruments measuring pain, clinical, functional, and global characteristics were administered to 303 patients in a six month randomized clinical trial of auranofin and placebo in the treatment of patients with rheumatoid arthritis. The instruments were compared with respect to their responsiveness in detecting a treatment effect, the time involved in administering the instrument, the need for the presence of an interviewer, and ease of administration. The instruments' ability to detect a treatment effect was the deciding characteristic in the clinical, pain, and global categories in choosing the preferred instrument. The counts of tender and swollen joints were found to be the most responsive clinical measures, the 10-cm pain line was the most responsive and the fastest to administer of the pain instruments, and the categorical self-assessment of arthritis was the most responsive global measure. In the functional ability category, the Health Assessment Questionnaire (HAQ), the Keitel Functional Assessment, and the Quality of Well-Being (QWB) Questionnaire were equally responsive. The HAQ was the shortest and the only self-administered questionnaire. The QWB has had the most extensive validation work but was a complex instrument requiring intensive interviewer training. The Keitel was the most time-consuming instrument, but had the advantage of high interobserver agreement. The design of future trials can be guided by the information obtained in this study on their relative efficiencies and ease of use.

KARNOFSKY

Source:

Karnofsky, D.A. et al.
Clinical evaluation of chemotherapeutic agents in cancer.
In: McLeod, C.M.
Evaluation of chemotherapeutic agents.
Colombia University Press: New York 1949.

Purpose:

Originally designed for use in assessing nursing dependency of patients with cancer, the scale has been incorporated in a wide range of other settings.

Description:

Three categories of performance status are distinguished: a. The ability to carry on normal activities and the ability to work; no special care is needed. b. The unability to work. The person is able to live at home and to look after most personal needs, but a varying degree of assistance is needed. c. The person is unable to care for himself and requires an equivalent form of institutional or hospital care. The disease may be progressing rapidly. These three categories are divided into more subscales which form a graduated scale from 0 to 100.

Validity and reliability:

Only more recently the validity and reliability of the index has been examined[10], and its status as a 'numeric scale' has even now not been seriously challenged. The index has as a result of this continued and largely uncritical acceptance, been used in a number of settings where its legitimacy must be seriously questioned. Despite these shortcomings the index does appear to have good prognostic properties as an indicator of imminent death in the terminally ill.

List of references:

Ganz, P.A, Haskell, C.M, Figlin, R.A, La Soto, N., Siau, J.
Estimating the quality of life in a clinical trial of patients with metastatic lung cancer using the Karnofsky performance status and the Functional Living Index-Cancer.
Cancer; 61, 1988, no. 4, p. 849-856
Nivel (C 1958)

> Serial assessments of Karnofsky performance status (KPS) and of the Functional Living Index--Cancer (FLIC) have been used to estimate the quality of life (QOL) of patients in a prospective, randomized trial of supportive care versus supportive care given with combination chemotherapy to patients with metastatic non-small cell lung cancer. There was a good correlation between KPS and FLIC scores at study entry, thus confirming results originally reported using the FLIC. However, a number of unexpected problems were encountered in data collection and quality control with this QOL assessment instrument. This made it impossible to look for differences in treatment effect on QOL in this clinical trial. It is believed that QOL assessment should be an integral part of cancer clinical trials; however, investigators must acknowledge the difficulties in collecting this type of data. The development of new instruments and the refinement of old ones will facilitate the collection of data for this important aspect of clinical trials research.

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[10] Hutchinson, T.A. et al.
Scientific problems in clinical scales as demonstrated in the Karnofsky index of performance status.
Journal of Chronic Diseases; 32, 1979, p. 661-666

Geddes, D.M.
Quality of life in lung cancer.
Respiratory Medicine; 85, 1991, Suppl B, p. 7-11, discussion p. 33-37
Nivel (C 1959)

The prognosis of a patient with lung cancer is poor and the quality is at least as important as the quantity of remaining life. Quality of life is a useful concept which is almost impossible to define but there are a number of important factors which contribute to it. Culture, religion, previous experience and the point of view of the individual all contribute to which of these factors are considered most important. Any quality of life assessment will, therefore, only apply to a defined community. The measurement of quality of life in cancer trials should concentrate on a few important categories such as physical symptoms, psychology and social factors and should be simple rather than comprehensive. In addition, a few frequent measures are better than an occasional comprehensive survey and ideally, both approaches should be combined and compared. Such measurements are most useful for comparative trials rather than for making an overall quality of life estimate. Finally, for routine clinical use outside clinical trials the quality of life index or the Karnofsky scale is recommended.

McClellan, W.M, Anson, C., Birkeli, K., Tuttle, E.
Functional status and quality of life: predictors of early mortality among patients entering treatment for end stage renal disease.
Journal of Clinical Epidemiology; 44, 1991, no. 1, p. 83-89
Nivel

Investigated was the association between functional status and quality of life in newly-entered dialysis patients and the subsequent risk of mortality. The researchers enrolled the patients from 37 dialysis facilities in two southeastern states (n = 294). Functional status was assessed by the Karnofsky Performance Scale (KPS) and quality of life by the Spitzer Quality of Life Index (SQLI). During a mean (SE) follow-up of 479.6 (109.4) days 49 patients (16.4%) of the cohort died. The mean KPS score (SE) for survivors was 7.31 (0.11) and for non-survivors was 5.89 (0.26), p less than 0.0001. The mean SQLI score (SE) for survivors was 6.74 (0.15) and non-survivors was 4.95 (0.28), p less than 0.0001. Strong gradients of the risk of mortality were found for both measurements. After controlling for other covariates including age, race, sex, primary cause of renal failure and the presence of comorbidity, both the KPS and SQLI scores were independently correlated with risk of mortality. Conclusion: The functional status and quality of life are strong independent risk factors for subsequent mortality in new dialysis patients. These are easily measured indicators which may serve to predict subsequent risk of mortality or adjust case-mix estimates for comparisons between dialysis populations.

Grundmann, R., Said, S., Krinke, S.
Quality of life after rectal resection or extirpation. A comparison using different measurement parameters.
Deutsches Medizinische Wochenschrift; 114, 1989, no. 12, p. 453-457
Nivel (C 1960)

> Two groups of 41 patients each who had undergone rectal resection or excision were questioned about the quality of their life 4.3 and 3.8 years, respectively, after the operation. Three different measurements were obtained (Karnofsky, Grogono and Spitzer indexes). In addition, the patients provided a subjective estimate of the quality of their life. The quality of life was significantly better after resection than after excision, most clearly so according to the Grogono index, and this was also reflected in the patients' personal assessment. In males rectal excision frequently resulted in inferiority feelings, depression and disorders of sexual activity. Females found it easier to cope: they showed only minor differences in quality of life between resection and excision. Irrigation proved to be the best means of stoma care as far as quality of life was concerned.

KATZ, INDEX OF ADL

Source:

Katz, S., Ford, A.B., Moskowitz, R.W., Jackson, B.A., Jaffe, M.W.
Studies of illness in the aged. The index of ADL: a standardized measure of biological and psychosocial function.
JAMA; 185, 163, p. 914-919

Purpose:

The Katz Activities of Daily Living scale is a measurement instrument of physical functioning to evaluate treatment outcome and prognosis in chronically ill and elderly people.

Description:

The index has to be completed by an observer or a therapist. By interviewing and observing a patient, the observer classifies the patient on a three point scale for each of the activities to be measured. These activities are: bathing, dressing, toiletting, transferring from bed to chair, continence and feeding. After this primary classification, the patient's overall performance is determined by an eight-point scale based on the score measured in the aforementioned six activities. One point is given for each item of dependency. In the order that is already given, these items form a Guttman scale, which means that the score indicates the exact pattern of responses.

Validity and reliability:

The construct validity (validity that refers to variation explained by other measurement scales) of the Katz scale, was investigated by Katz et al.[11] They found correlations with measures of range of motion, intelligence and orientation. Other studies have shown correlations between mortality and the level of independency in activities of daily living in nursing homes.[12] These studies also showed a correlation between the discharge status and the Katz scale.

List of references:

Traver, G.A.
Measures of symptoms and life quality to predict emergent use of institutional health care resources in chronic obstructive airways disease.
Heart-Lung; 17, 1988, Nov 6 Pt 1, p. 689-697
Nivel (C 1961)

> Thirty subjects with severe chronic obstructive airways disease participated in a study to identify differences in symptoms and life quality between those with high and low emergent use of institutional health care resources. Emergent use was defined as care obtained through unscheduled, nonroutine methods of access to health care providers. There were 15 subjects in each group; the groups had similar sex distribution and were not significantly different for percent predicted forced expiratory volume in 1 second (mean 29.8%), use of home oxygen (15 of 30 subjects), or prevalence of CO_2 retention (nine of 30). Symptoms and life quality were measured by using three paper and pencil tests, the Bronchitis-Emphysema Symptom Checklist, the Sickness-Impact Profile, and the Katz Adjustment Scale. Findings demonstrated consistently more symptoms and impairment of life quality in the "high emergent" group. The differences reached statistical significance for irritability, anxiety, helplessness, nervousness, peripheral sensory complaints, alienation, social interaction, and emotional behavior.

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[11] Katz, S. et al.
Progress in development of the index of ADL.
The Gerontologist; 10, 1970, p. 20-30

[12] Spector, W.D. et al.
Case-mix outcomes and resources use in nursing homes.
Final report prepared for the Health Care Financing Administration, cooperative agreement, no. 18-C-98719/1
Providence, RI: Center for Gerontology and Health Care Research, Brown University 1988.

Discriminant analysis provided a prediction formula that yielded 80% correct prediction for the two groups.

OARS MULTIDIMENSIONAL FUNCTIONAL ASSESSMENT MEASUREMENT

Source:

Fillenbaum, G., Smyer, M.A.
The development, validity, and reliability of the OARS multidimensional functional assessment questionnaire.
Journal of Gerontology; 36, 1981, no. 4, 428-434

Purpose:

The measurement scale was designed to measure the current functional status of individuals or populations in five dimensions: social resources, economic resources, physical health, mental health, and capacity for self care and independent instrumental behaviour or activities of daily living. It was intended to be useful for the clinician, for the researcher, and for the program analyst.

Description:

Each dimension yields a functional status score which lies along a six-point continuum from 'excellent' to 'totally impaired'. A cumulative rating of functional status is also calculated. The scale consists of 72 questions, to be answered by the respondent; an additional ten questions about the respondent, to be answered by an informant; fourteen questions about the respondent, to be answered by the interviewer; and five major rating scales, calculated by a rater. The scale is suitable for either institutional or community residents.

Validity and reliability:

Spearman correlations between the scale's scores and physician's ratings on physical health were found by Fillenbaum[13] and ranged from 0.61 to 0.81. Correlations between OARS scores and ratings by psychiatrists on mental health ranged from 0.49 to 1.00. Fillenbaum also showed that the OARS scale can discriminate between known groups of community residents, clinic patients, and institutional residents.

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[13] Fillenbaum, G.G.
Validity and reliability of the multidimensional functional assessment questionnaire.
In: Multidimensional functional assessment: The OARS methodology, a manual.
Durham, NC: Duke University Center for the Study of Aging and Human development, 1978.

List of references:

Hughes, S.L., Conrad, K.J., Manheim, L.M., Edelman, P.L.,
Impact of long-term home care on mortality, functional status, and unmet needs.
Health Services Research; 23, 1988, no. 2, p. 269-294
Nivel

> This article reports the outcomes of a four-year follow-up evaluation of the Five Hospital Program, a long-term home care program in Chicago. Outcomes assessed include the mortality, comprehensive functional status, and perceived unmet needs of its frail elderly clientele (mean age 81 years at entry). The evaluation utilized a pretest, multiple posttest design with a comparison group consisting of similarly elderly and impaired individuals receiving home-delivered meals. Consecutively accepted treatment (N = 157) and comparison group clients (N = 156) were interviewed using the OARS Multidimensional Functional Assessment Questionnaire at baseline, 9 months, and 48 months after acceptance to care. A multivariate analysis of mortality rates revealed no between-group differences attributable to treatment on this outcome. Major findings included significantly better cognitive functioning and reduced unmet needs in the treatment group at nine months. A longer-range, continued beneficial effect of treatment on cognitive status was also observed at 48 months. The researchers conclude that long-term home care provided important benefits to clients at both 9 and 48 months, with no effect on mortality. However, they suggest that the four-year findings be interpreted with caution, since only a small percentage of clients (18 percent) were still alive and receiving active care in the community at that time.

Haug, M., Belgrave, L.L., Gratton, B.
Mental health and the elderly: Factors in stability and change over time.
Journal of Health and Social Behavior; 25, 1984, no. 2, p. 100-115
Nivel

> Conducted was an experiment to study the factors involved in the change in mental health status of elderly people over 1 year. The data on 1,332 subjects, aged 65+, who were interviewed both in 1975 and in 1976 as part of the Cleveland General Accounting Office study reveal that, over 1 year, more elderly persons improved or remained stable than declined in self-assessed mental health and psychiatric symptoms. This pattern is contrary to findings that mental impairment increases with age. The subjects were administered by a self-assessed mental health index that combines responses from the OARS Multidimensional Functional Assessment Questionnaire and a psychiatric symptom scale (PSS) consisting of 15 items. Factor analysis of a PSS identified 2 subscales, one a measure of psychological symptoms and the other of somatic symptoms; both are analyzed in this report. Good physical health in 1976 and less illness during the year emerged as the most powerful explanations for gains in all mental health measures, with higher educational levels also contributing to such gains. Improvement in self-assessed

mental health was more likely for black people than for white people, and males were more likely than females to show improvement in somatic symptomatology. Implications for measurement of mental health and for quality of life among the elderly are discussed.

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2. Measurement of Global Health.

CITY OF HOPE MEDICAL CENTER QUALITY OF LIFE INDEX

Source:

Ferrell, B.R., et al.
Quality of life as an outcome variable in the management of cancer pain.
Cancer; 63, 1989, p. 2321-2327

Purpose:

The evaluation of quality of life as a measure of pain management outcome in the individual patient.

Description:

This measurement scale is a multidimensional instrument consisting of 100-mm visual analogue scales with word extremes as anchors at each end. Items in the survey represent the areas of psychological well-being, physical well-being, general symptom control, specific symptom control, and social support. The scale contains 28 questions and has to be completed by the patient himself. This can be done in about 10 minutes.

Validity and reliability:

The authors list their findings of the evaluation of the internal consistency of the quality of life instrument. All the scales had r values of ≥ 0.65. Interrater reliability was established as an index of agreement between the two data collectors on the pain-assessment tool and the Karnofsky rating. The results computed using a Pearson product moment correlation were r = 0.94 for the pain assessment tool and r = 0.82 for the Karnofsky rating. The current tool had not been used before and was therefore tested for content validity using a panel of experts in oncology and pain management. The content validity index was 0.90.

List of references:

Ferrell, B.R., Wisdom, C., Wenzl, C.
Quality of life as an outcome variable in the management of cancer pain.
Cancer; 63, 1989, 11 suppl., p. 2321-2327
Nivel (C 1962)

> Valid measurement tools are needed by oncology researchers to help in the evaluation of the effectiveness of pain relief methods used in the treatment of cancer patients. A study was conducted to assess the validity and reliability of a tool designed to evaluate quality of life as a measure of pain management outcome in the individual patient. Items in the tested quality of life survey represented the areas of psychologic well-being, physical well-being, general and specific symptom control, and degree of social support. Using the test instrument, two oncology nurses interviewed subjects in three groups, each consisting of 50 subjects: cancer patients with pain, cancer patients without pain, and subjects with no cancer. Statistical analysis of the interview results revealed that the instrument has test-retest reliability, internal consistency, and interrater reliability, as well as content and construct validity for the major factors, psychologic well-being, worry, and nutrition. Further revision of the instrument is needed to restructure its subscales. The quality of life tool will enable researchers to evaluate a treatment regarding not only its effect on pain intensity but also its impact on the total individual.

FUNCTIONAL LIVING INDEX CANCER

Source:

Schipper, H., Clinch, J., McMurray, A., Levitt, M.
Measuring the quality of life of cancer patients: The Functional Living Index-Cancer: development and validation.
Journal of Clinical Oncology; 2, 1984, no. 5, p. 473-483

Purpose:

The Functional Living Index-Cancer represents a measure of the overall functional quality of a cancer patient's day to day life. It permits clinical trials to be compared for functional living outcomes in addition to other measures.

Description:

The index is designed for self administration. It does not require the intervention of interviewers or health professionals for its administration. Its contents are based on four principal areas of functional importance: 1. vocation/activity, 2.

affect/psychological state, 3. social interaction and 4. somatic sensation. Each question is assessed by a graded linear analogue scale. For example with regard to the question 'Most people experience some feelings of depression at times. Rate how often you have these feelings.' the patient can choose between 'never' and 'continually' on a scale which is divided into six parts. It should be possible to complete this questionnaire within a quarter of an hour.

Validity and reliability:

The FLIC has been validated on 837 patients in two cities (Winnipeg/Edmonton) over a three year period. Validity and reliability was investigated by looking at the stability of factor analysis and by concurrent validation studies against the Karnofsky Scale (r=0.693/r=0.619), the Beck Depression Inventory (r=-0.724/r=-0.773), the Spielberger State Anxiety Scale (r=-0.557,r=-0.558), the Spielberger Trade Anxiety Scale (r=-0.551,r=-0.559), Katz Activities of Daily Living Scales (r=-0.170, -0.305), as well as the scaled version of the General Health Questionnaire (r=-0.724,r=-0.765).

List of references:

Finkelstein, D.M., Cassileth, B.R., Bonomi, P.D., Ruckdeschel, J.C., Ezdinli, E.Z., Wolter, J.M.,
A pilot study of the Functional Living Index-Cancer (FLIC) Scale for the assessment of quality of life for metastatic lung cancer patients.
American Journal of Clinical Oncology; 11, 1988, no.6, p. 630-633
Nivel (C 1963)

> Quality of life is an important factor in the assessment of cancer therapy, but it is difficult to define and measure. The Functional Living Index-Cancer (FLIC) was designed specifically for cancer patients under treatment. The Eastern Cooperative Oncology Group (ECOG) mounted a pilot study to assess the feasibility and sensitivity of the patient-oriented FLIC scale for assessment of quality of life. The results of this study show that the FLIC scores correlate with the functional status of patients on treatment: high scores on the FLIC prior to therapy were found to correlate with good performance status ($p < 0.0001$), and decreases in the FLIC score during therapy correlated with a decline in performance status ($p < 0.0001$), with poor performance status ($p < 0.0002$), and greater than 5% recent weight loss ($p < 0.004$). However, there was poor compliance to completion of the instrument, indicating a need for future research into this aspect of assessing quality of life in the cooperative group setting.

Ganz, P.A., Haskell, C.M., Figlin, R.A., Siau, J.
Estimating the quality of life in a clinical trial of patients with metastatic lung cancer using the Karnofsky performance status and the Functional Living Index-Cancer.
Cancer; 61, 1988, no. 4, p. 849-856
Nivel
-abstract on page 15-

GLOBAL QUALITY OF LIFE SCALE

Source:

Coates, A., Glasziou, P., McNeil, D.
On the receiving end - III. Measurement of quality of life during cancer chemotherapy.
Annals of Oncology; 1, 1990, p. 213-217

Purpose:

The scale was designed to measure how someone's disease and treatment affect the quality of his/her life. It is a cancer-specific measurement scale.

Description:

This scale is a self-administered linear analogue assessment scale, containing the following eight items: anxiety/depression, nausea/vomiting, numbness or pins and needles, loss of hair, tiredness, appetite or sense of taste, sexual interest or ability, thoughts concerning the idea of actually having treatment. All items can be marked with a dash on a line between 'none' and 'worst I can imagine' to indicate the patient's feelings.

Validity and reliability:

An analysis by Coates et al. included 166 patients. The scale showed high reliability, with test-retest correlation coefficients exceeding 0.8 by almost all items. Comparisons with established instruments supported the validity.

List of references:

Coates, A., Glasziou, P., McNeil, D.
On the receiving end - III. Measurement of quality of life during cancer chemotherapy.
Annals of Oncology; 1, 1990, no. 3, p. 213-217
Nivel (C 1964)

> From previous studies of the side effects patients identified as important in cancer chemotherapy the investigators identified eight groups of symptoms. Linear analogue self assessment (LASA) scales for these 8 items form a new instrument (GLQ-8) for measuring aspects of quality of life. Patients completed both GLQ-8 and five previously validated LASA scales, together with a new single global quality of life scale (GLQ uniscale) and the visual analogue version of the Spitzer QL Index. This analysis includes 166 patients, with 47 1-hour test-retest and 29 24-hour test-retest pairs. The new scales showed high reliability, with retest correlation coefficients exceeding 0.8 for all items except the GLQ uniscale, appetite and anxiety on the 1-hour retest, and all except nausea and numbness on the 24-hour retest. Correlations were in general higher for the GLQ-8 items than for the 5 older LASA scales, while inter-item correlations were lower. Comparisons of the new scales with established instruments and comparisons of new scale scores between known groups supported the validity of the new scales. We conclude that the GLQ-8 and GLQ uniscale are convenient and reliable instruments measuring aspects of quality of life in patients receiving cancer chemotherapy.

Butow, P., Coates, A., Dunn, S., Bernhard, J., Hurny, C.
On the receiving end - IV: Validation of quality of life indicators.
Annals of Oncology; 2, 1991, no. 8, p. 597-603
Nivel (C 1965)

> Four measures of patient functioning and a mood adjective list currently used in trials of the International Breast Cancer Study Group (IBCSG), and an 8-item Linear Analogue Self Assessment (LASA) instrument measuring specific side effects of cancer and cancer treatment (GLQ-8), were cross-validated against three established measures of quality of life, mood and psychological adjustment to cancer, in a heterogeneous sample of cancer patients. Correlations between new and established measures were high, indicating good convergent and concurrent validity. Despite the difficulty in developing direct and methodologically sound measures of quality of life, the regular inclusion of practical indicators of aspects of quality of life in clinical trials would allow improved assessment of the cost-benefit ratio of treatment to outcome in cancer patients.

HEMODIALYSIS QUALITY OF LIFE QUESTIONNAIRE

Source:

Churchill, D.N. et al.
A comparison of evaluative indices of quality of life and cognitive function in hemodialysis patients.
Controlled Clinical Trials; 12, 1991, p. 159S-167S

Purpose:

The hemodialysis quality of life questionnaire is a disease-specific instrument to evaluate the quality of life of end stage renal disease patients.

Description:

From the responses received from 30 hemodialysis patients and 13 health-care professionals, 79 items were generated. In a semistructured interview, an additional number of 45 hemodialysis patients indicated whether an item was important to them or not. This reduced the total number of items to 61. The items are grouped into five domains: symptoms related to end-stage renal disease, hemodialysis treatments, moods, sociovocational domains and family-sexual ones. From the symptoms related to end-stage renal disease, patients select 10-15 items; for symptoms related to certain treatments, patients select 10-23 items. The moods, sociovocational, and family-sexual domains contain 9, 10 and 4 items respectively. Thus, the number of items in the instrument ranges from 43 to 61, depending on the patient's selection of items from the symptom domains.

Validity and reliability:

For the five domains of the questionnaire, the test-retest intraclass correlation coefficients ranged from 0.91 to 0.95 ($p < 0.001$ in each case).

List of references:

Churchill, D.N, Wallace, J.E, Ludwin, D., Beecroft, M.L, Taylor, D.W
A comparison of evaluative indices of quality of life and cognitive function in hemodialysis patients.
Controlled Clinical Trials; 12, 1991, no. 4 Suppl, p. 159S-167S
Nivel (C 1966)

> In the setting of end-stage renal disease, the reproducibility and responsiveness of three health-related quality-of-life instruments were evaluated. The Time Trade Off instrument (TTO) is a generic instrument,

used to evaluate the utility of a health state. The Hemodialysis Quality-of-Life questionnaire (HQL) is a disease-specific instrument. A series of function-specific tests evaluated neurocognitive function. The TTO and HQL instruments are patient centric in the sense that patient values define the health status, while the neurocognitive function tests reflect the values of healthcare professionals. Forty-seven chronic hemodialysis patients participated. Those with adequate dialysis, were administered by the three instruments separated by six to eight weeks. The test-retest intraclass correlation coefficient exceeded 0.90 for all five domains of the HQL questionnaire and exceeded 0.70 for nine neurocognitive function tests. The TTO was not responsive. For the HQL questionnaire, an item was considered responsive if a 1-point improvement, on a 7-point Likert type scale, occurred significantly more often among those with an improvement in hemodialysis treatment compared to those without improvement. Only one item had such a change and therefore the HQL cannot be considered responsive.

KIDNEY DISEASE QUESTIONNAIRE

Source:

Guyatt, G.H., Bombardier, C., Tugwell, P.
Measuring disease-specific quality of life in clinical trials.
Canadian Medical Association Journal; 134, 1986, p. 889-895

Purpose:

The Kidney Disease Questionnaire is a disease-specific measurement scale for evaluating the quality of life of hemodialysis patients.

Description:

The final questionnaire, obtained by means of a literature review and interviews with patients and health care workers, consists of 26 questions divided into five dimensions: fatigue, physical symptoms, relationships with other people, depression, and frustration. The physical symptoms dimension is patient specific (patients are asked to identify those physical symptoms or problems that most affect their lifes). These patient specific items are used throughout the trial. All questions are scored on a seven point Likert scale (seven indicates no problem; one indicates severe problems).

Validity and reliability:

The subscales of the kidney disease questionnaire (physical, fatigue, relationships, depression, frustration) were compared with the global, physical and psychological subdimensions of the Sickness Impact Profile by Laupacis et al in the below mentioned research. These correlations were respectively -0.42, -0.51, -0.46, -0.44 and -0.33 with the global SIP; -0.31, -0.38, -0.27, -0.18, and -0.11 with the physical SIP; and -0.38, -0.45, -0.43, -0.49, and -0.39 with the psychosocial SIP.

List of references:

Laupacis, A., Wong, C., Churchill, D.
The use of generic and specific quality-of-life measures in hemodialysis patients treated with erythropoietin.
Controlled Clinical Trials; 12, 1991, no. 4 Suppl, p. 168S-179S
Nivel (C 1967)

> The effect of recombinant human erythropoietin (EPO) on the quality of life and exercise capacity of 118 hemodialysis patients was assessed in a randomized, double-masked placebo-controlled trial. Patients were randomized into three groups: 1) placebo, 2) EPO to achieve a hemoglobin of 95-110 g/L and 3) EPO to achieve a hemoglobin of 115-130 g/L. Patients were followed for six months. Quality of life was assessed using a disease-specific measure [the Kidney Disease Questionnaire (KDQ)] and two generic measures [Sickness Impact Profile (SIP) and the Time Trade OFF (TTO)]. The KDQ contains five dimensions. Functional capacity was assessed with a Six-Minute Walk test (SMW) and an Exercise Stress Test (EST). The mean hemoglobin at six months was 74, 102, and 117 gm/l in groups one, two and three, respectively. There was a marked improvement in quality of life with EPO therapy, but no difference between groups 2 and 3. The outcome measure that was the most responsive to change was the KDQ (p less than 0.001 for the fatigue and physical symptoms dimensions). The aggregate global (p less than 0.02) and physical ($p < 0.005$) scores of the SIP improved with EPO therapy, the psychosocial score did not. There was no improvement in the TTO. There was an improvement in the EST ($p < 0.02$) but not in the SMW. The reproducibility of the outcome measures in placebo-treated patients varied between 0.80 and 0.98 (intra-class correlation coefficient). The correlation among the outcome measures at six months was statistically significant in most cases, as was the correlation of change scores between baseline and six months.

LASA

Source:

Priestman, T.J., Baum, M.
Evaluation of quality of life in patients receiving treatment for advanced breast cancer.
Lancet; 1976, p. 899-901

Purpose:

Priestman and Baum used linear analogue self-assessment scales to measure 10 arbitrarily chosen aspects of the quality of life of patients with cancer. In general the LASA technique provides a method for the assessment of quality of life in patients receiving cancer therapy, and allows comparison of patient perception of treatment-related morbidities.

Description:

The LASA scale comprises 10 questions dealing with pain, appetite, well-being, nausea, sleepiness, weaknesses, drowsiness, anxiety, moods and vomiting. Patients score each question on a 10-point scale ranging from 'worst' to 'best'. This scale consists of a 10 cm line with the words that describe the extremes of the variable to be measured labeled at the end of that line. The scores are summed to give an overall index score.

Validity and reliability:

In the above mentioned study one hundred women with advanced breast cancer were randomly allocated to endocrine or combination cycotoxic therapy. Ninety-two were available for assessment; 51 completed the LASA. Fourteen of the 25 women in the endocrine group completed the LASA for six weeks. Women in the cycotoxic group had higher symptom related scores and higher quality of life scores than women in the endocrine group. Well-being differences reached significance after 11 weeks. Non responsive patients showed worse depression scores than women responding to treatment. Changes in weekly scores indicated that the LASA scores reflect clinical changes.

List of references:

McGowan, I., Barr, H., Krasner, N.
Palliative laser therapy for inoperable rectal cancer--does it work? A prospective study of quality of life.
Cancer; 63, 1989, no. 5, p. 967-969
Nivel (C 1968)

Endoscopic neodymium yttrium aluminium garnet (Nd YAG) laser therapy, is a new and simple method for the palliative treatment of inoperable colorectal cancer. To date the authors have treated 70 patients and the value of this method was assessed prospectively in 14 patients. Quality of life was measured before, during, and after treatment. The quality of life (QL) index, a physician's assessment and a linear analogue self-assessment (LASA) were used. A close correlation was found between the two assessment methods ($r = 0.79$). Overall there was a significant improvement from the mean pretreatment score and the best score achieved posttreatment (QL: $p < 0.002$; LASA: $p < 0.002$). Patients with diarrhea, rectal bleeding, mucus discharge, or pain secondary to tumor bulk, will benefit most from this treatment. Malignant cachexia, pain secondary to sacral plexus involvement, tumor encroachment on the anal canal and/or sphincter dysfunction resulting from tumor invasion should be viewed as relative contraindications to laser therapy. The authors conclude that in selected patients endoscopic laser therapy can provide effective palliation in patients with malignant tumors of the rectum and descending colon.

Barr, H., Krasner, N.
Prospective quality-of-life analysis after palliative photoablation for the treatment of malignant dysphagia.
Cancer; 68, 1991, no. 7, p. 1660-1664
Nivel (C 1969)

Forty patients were treated for the relief of malignant dysphagia by using laser photoablation. Their quality of life was assessed before the start of treatment and at monthly intervals until death. Two methods were used, a physician's assessment (QL index) and a patient's self-assessment, the linear analogue self-assessment (LASA). There was significant correlation between assessments done at different times by different physicians (QL index rs, 0.786; p less than 0.001; LASA rs, 0.865; p less than 0.001). The correlation coefficient of the QL index and the LASA score with the patient's dysphagia grade was 0.459 and 0.336, respectively. The patient's swallowing ability, QL index, and LASA all were improved significantly at some time after laser therapy. The mean survival was 16 weeks with 58% of patients dying at home, 28% in the hospital, and 18% in a hospice. It was concluded that laser photoablation improves the overall quality of life in patients with malignant dysphagia.

Della Cuna, G.R, Pellegrini, A., Piazzi, M.
Effect of methylprednisolone sodium succinate on quality of life in preterminal cancer patients: a placebo-controlled, multicenter study.
European Journal of Cancer and Clinical Oncology; 25, 1989, no. 12,
p. 1817-1821
Nivel (C 1970)

The effectiveness of an 8-week, 125 mg/day intravenous course of methylprednisolone sodium succinate (MPSS) for improving quality of life in patients with preterminal cancer was investigated in a double-blind, placebo-controlled, multicenter study. Quality of life was assessed using the Nurses' Observational Scale for Inpatient Evaluation (NOSIE), the Linear Analog Self-Assessment Scale (LASA), and the Physicians' Global Evaluation. A total of 403 patients were enrolled: 207 were treated with MPSS and 196 were treated with placebo. MPSS was significantly more effective than placebo in improving quality of life as judged by the changes from baseline in the NOSIE and LASA total scores. (p less than 0.05) and by the Physicians' Global Evaluation (p less than 0.001). The mortality rate was similar between MPSS-treated males (40.2%), placebo-treated males (35.5%), and MPSS-treated females (40.0%). However, the mortality rate of 27.7% for female placebo-treated females was significantly lower than for their MPSS-treated counterparts. The reason for lower mortality among placebo-treated females is unknown and warrants further study.

Rieker, P.P., Clark, E.J, Fogelberg, P.R.
Perceptions of quality of life and quality of care for patients with cancer receiving biological therapy.
Oncol-Nurs-Forum; 19, 1992, no. 3, p. 433-440
KNAW

This retrospective, descriptive study was undertaken to identify patient and family perceptions about quality of life (QOL) and quality of care (QOC) after experimental biological therapy. A mail survey that included instruments designed to measure QOL (the Profile of Mood States [POMS] and the Linear Analogue Self-Assessment [Lasa]) and QOC was sent to patients (response rate, 60%) and to relatives of deceased patients (response rate, 70%). Bivariate and multivariate statistics were used to analyze the data. Patients reported a relatively good quality of life, as measured by POMS and LASA scores. The majority of living patients and of family members of deceased patients were positive about the QOC received; relatives were significantly less positive than patients. Four components were significant in respondents' assessment of QOC: adequate symptom control, availability of support services, communication with the medical team, and receiving information about response to treatment. The findings suggest that there is a need to supplement survival data and biomedical outcomes with information about patient and family perceptions about care and treatment.

Coates, A., Fischer Dillenbeck, C., McNeil, D.R., Kaye, S.B., Sims, K., Fox, R.M., Woods, R.L., Milton, G.W., Solomons, J., Tattersall, M.H.N.
On the receiving end - II. Linear Analogue Self-Assessment (LASA) in evaluation of aspects of the quality of life of cancer patients receiving therapy.
European Journal of Cancer and Clinical Oncology; 19, 1983, no. 11,
p. 1633-1637
Nivel (C 1971)

Linear Analogue self-assessment (LASA) scales were used to measure general well-being and specific factors in patients receiving therapy for malignant melanoma, small cell bronchogenic carcinoma (SCBC) or ovarian cancer. Among the patients with SCBC and melanoma, high correlations were observed between LASA scores for general well-being, mood and appetite. There was a significant relationship between performance status and LASA scores for general well-being, pain and appetite. Among patients with ovarian cancer, there was a significant association between performance status and LASA scores for general well-being, breathlessness and physical activity. Objective response category was related to change in LASA scores for pain. Changes in LASA scores during treatment reflected increased morbidity during radiotherapy in patients also receiving chemotherapy for SCBC. The LASA technique provides a convenient method for the assessment of quality of life in patients receiving cancer therapy, and potentially allows comparison of patient perception of treatment-related morbidities.

McMASTER HEALTH INDEX QUESTIONNAIRE

Source:

Chambers, L.W., Sacket, D.L., Goldsmith, C.H.
Development and application of an index of social function.
Health Services Research; 11, 1976, p. 430-441

Purpose:

The measurement of physical, social and emotional functioning with the additional intention to provide independent measurements of these three dimensions.

Description:

In the McMaster Health Index Questionnaire three dimension are examined. The physical dimension concerns mobility, self-care, communication, and global physical functioning. Items concerning the social dimension are general well-being, social role performance, social support and participation, and global social function. The last dimension, with respect to emotional aspects, contains the following items: self-esteem, findings about personal relationships and the future, critical life events, and global emotional functioning. The scale contains 59 items which the patient should be able to process in about twenty minutes.

Validity and reliability:

Chambers et al. report that the McMaster Health Index Questionnaire correlates well with other scales. The index of emotional, physical and social function correlate well with the Bradburn Psychological Well-Being Scales. The physical function also correlated with pain scales. With regard to the reliability Chambers et al. found a correlation of 0.80 between the physical and emotional function values. Intraclass correlation coefficients were found between 0.48 and 0.95 for the physical, emotional and social scores. The internal consistency coefficients between the physical, emotional and social functional indices were 0.76, 0.67 and 0.51.

List of references:

O'Boyle, C.A, McGee, H., Hickey, A., O'Malley, K., Joyce, C.R.
Individual quality of life in patients undergoing hip replacement.
Lancet; 339, 1992, no. 8801, p. 1088-1091
Nivel

> Quality of life (QoL) assessment is becoming increasingly important for measuring the impact of illnesses, diseases, and their treatment and for deciding priorities when allocating resources. The researchers developed a method to measure QoL from the perspective of the individual patient. The schedule for the evaluation of individual quality of life (SEIQoL) was devised from the technique known as judgment analysis to measure patients' level of functioning in five self-nominated facets of life and the relative weight or importance attached to these areas. They applied this method, together with traditional measures of health status, in a prospective intervention study of 20 patients undergoing unilateral total hip-replacement surgery with six-month follow-up by comparison with matched, non-patient controls. Health status was significantly improved by hip replacement on the McMaster health index questionnaire (p less than 0.001) and the arthritis impact measurement scales (p less than 0.001). Individually measured QoL was significantly increased after surgery when measured by SEIQoL (p less than 0.02). The individual nature of QoL was reflected in the variety of life areas nominated as important by individual patients, the differences in relative weights attached to these areas, and the complex nature of the changes that occurred postoperatively. Our data not only highlight such individuality but also show that SEIQoL provides a means by which this can be assessed scientifically.

MEDICAL OUTCOME STUDY: SHORT-FORM HEALTH SURVEY

Source:

Stewart, A.L., Hays, R.D., Ware, J.E.
The MOS Short-form General Health Survey: reliability and validity in a patient population.
Medical Care; 26, 1988, p. 724-735

Purpose:

The Short-Form Health Survey was designed for use in clinical practice and research, health policy evaluations, and general population surveys.

Description:

The survey includes one multi-item scale which assesses eight health concepts: 1. limitations in physical activities because of health problems, 2. limitations in social activities or emotional problems, 3. limitations in ordinary role activities because of physical health problems, 4. bodily pain, 5. general mental health, 6. limitations in ordinary role activities because of emotional problems, 7. vitality, and 8. general health perceptions. The survey was constructed for self-administration by a trained interviewer. A 36-item and a 20-item short-form exist.

List of references:

Kempen, G.
The MOS Short-Form General Health Survey: single item vs multiple measures of health-related quality of life: some nuances.
Northern Centre for Health Care Research, University of Groningen.
Psychological Reports; 70, 1992, no. 2, p. 608-610
Nivel (C 1972)

> The researchers concluded that Item 2 of the Short-form General Health Survey of the Medical Outcomes Study can be used as a single-item measure of health-related quality of life. This conclusion is tested again on a random sample of elderly people in the Netherlands. Although it can be concluded that the psychometric properties of the short form are satisfactory, the use of the single item as a measure of health-related quality of life is discussed.

Cunny, K.A., Perri, M.
Single-item vs multiple-item measures of health-related quality of life.
Psychological Reports; 69, 1991, no. 1, p. 127-130
Nivel (C 1973)

Many survey instruments measure health-related quality of life. Researchers can choose from instruments ranging in length from one to several hundred items. A small sample of 35 chronically ill adults self-administered the Short-form General Health Survey of the Medical Outcomes Study, a 20-item health-related quality-of-life measure with established reliability and validity. One specific item on the MOS questionnaire can serve as a single-item measure of health-related quality of life. This one item correlated positively and significantly with the over-all score for health-related quality of life. The results of this analysis support the use of this single-item measure of health-related quality of life when multiple-item instruments are not suitable due to limitations of resources or sample size.

NOTTINGHAM HEALTH PROFILE

Source:

Hunt, S.M., et al.
A quantitive approach to perceived health status: a validation study.
Journal of Epidemiology and Community Health; 34, 1980, p. 281-286

Purpose:

The Nottingham Health Profile was developed in the UK and is based on lay perceptions of health status. The conceptual basis of the NHP was founded on the idea that it should reflect lay rather than professional definitions of health. It was developed after interviews with a large number of lay people about the effect of illness on behaviour. (Bowling)

Description:

The Nottingham Health Profile is a two part, self-administered questionnaire, designed according to perceived health problems. Part I consists of 18 questions, all of which are to be answered with yes or no. Part I considers problems that people may have in their daily lives. The questions come down to for example: I am tired all the time, I have pain at night, things are getting me down, I have trouble getting up and down stairs/steps, etc. Part II contains 7 questions about the present state of health with respect to: job or work, housekeeping, social life, home life, sex life, interests & hobbies, holidays.

Validity and reliability:

The NHP has been tested for face, content and criterion validity and has been found to be a highly satisfactory measure of subjective health status, in the physical, social and emotional domains. Among other things, testing has taken place in four groups of elderly people (over 65) with differing clinical conditions, patients who consult their general practitioners, firemen, mine rescue workers, pregnant women, patients undergoing minor surgery and fracture victims.

List of references:

Wiklund, I., Romanus, B.
A comparison of quality of life before and after arthroplasty in patients who had arthrosis of the hip joint.
Journal of Bone and Joint Surgery. American volume; 73, 1991, no. 5, p. 765-769
RUU

> Quality of life before and one year after total hip arthroplasty was evaluated in fifty-six patients who had arthrosis of the hip joint. There were twenty-one men and thirty-five women, and the median age was sixty-five years (range, thirty to seventy-nine years). Before and after total hip arthroplasty, a functional assessment was done with the Charnley-Merle d'Aubigne scoring system. The patients assessed quality of life using the Nottingham Health Profile. In the comparison of quality of life before and after the arthroplasty, significant improvement was observed regarding pain (p less than 0.0001), energy (p less than 0.0001), sleep (p less than 0.0001), and social isolation ($p < 0.001$). Similarly, there was a significant reduction in the frequency of health-related problems pertaining to housework (p less than 0.0001), holidays (p less than 0.0001), hobbies ($p < 0.0001$), social life (p less than 0.0001), sexual function ($p < 0.001$), and family life ($p < 0.0005$), and among patients who were sixty-five years old or less and who worked at paid employment ($p < 0.04$). Quality of life after total hip arthroplasty was in close agreement with that of a healthy reference group of similar age and sex distribution. It was concluded that quality of life after total hip arthroplasty is improved considerably. The Nottingham Health Profile is a valuable tool in the evaluation of the result of, as well as the indicators for, total hip arthroplasty.

Wiklund, I.,
The Nottingham Health Profile - a measure of health-related quality of life.
Scandinavian Journal of Primary Health Care; 1990, Suppl 1, p. 15-18
Nivel

> Assessment of quality of life has attracted increasing interest in recent years. A standardized way of evaluating quality of life is by using questionnaires. One such, the Nottingham Health Profile (NHP), measures health-related quality of life within the sections of energy, sleep, emotions, pain, mobility and social isolation as well as the frequency of health-related problems pertaining to paid employment, housework, hobbies, family life, social life, sex life and holidays. The NHP is well-documented with

regard to reliability and validity, and is useful in describing the impact of chronic disease. The NHP is, moreover, a useful evaluative tool in patients with more pronounced disability.

Nilsson, L., Franzen, H., Stromqvist, B., Wiklund, I.
Function of the hip after femoral neck fractures treated by fixation or secondary total hip replacement.
International Orthopaedics; 15, 1991, no. 4, p. 315-318
Nivel (C 1974)

Two matched groups of 28 patients each, with femoral neck fractures treated by primary internal fixation or by secondary total hip replacement after a complication of primary treatment, were evaluated and compared five years or more after primary pin fixation or secondary total hip replacement. The Nottingham Health Profile questionnaire was sent and returned by mail and the patient groups were matched with regard to age, sex, health, and social situation. Patients with healed fractures had less problems with sleep, housework and hobbies, and thus functioned better than patients who had required a secondary total hip replacement.

PHYSICAL AND MENTAL IMPAIRMENT-OF-FUNCTION EVALUATION

Source:

Gurel, L., Linn, M.W., Linn, B.S.
Physical Impairment of Function Evaluation in the aged: the PAMIE scale.
Journal of Gerontology; 27, 1972, p. 83-90

Purpose:

The Physical and Mental Impairment of Function Evaluation (PAMIE) records physical, psychological and social disability in the institutionalized elderly. It It intended for use with psychiatric and non-psychiatric chronically ill patients. (McDowell)

Description:

The 77-item PAMIE is a modification of two previous instruments, the Self-Care Inventory and the 43-item Patient Evaluation Scale. Factor analysis of the latter scale has helped to determine the contents of the PAMIE, which cover 12 topics: ambulation, self-care, verbal hostility, bedfastness, sensory and motor functions, mental confusion, cooperation, withdrawal/apathy, deteriorated appearances, anxiety, depression, irritability, paranoia and suspicion. The items are mainly concerned with observable behaviour during the preceding week; all but the first three make use of a yes/no answer format. The instrument can be completed in 10 to 15 minutes by a caregiver, generally a nurse who is familiar with the patient. (Mc Dowell)

Validity and reliability:

The PAMIE scale was tested on 845 male veterans in nursing homes. Their mean age was 66 years.

PROGRESSIVE DETERIORATION SCALE

Source:

DeJong, R., Osterlund, O.W., Roy, G.W.
Measurement of quality-of-life changes in patients with alzheimer's disease.
Clinical Therapeutics; 11, 1989, no. 4, p. 545-554

Purpose:

This scale was developed for indicating differences and changes in the quality of life of patients with Alzheimer's disease as the disease progresses.

Description:

This instrument was generated from interviews with spouses and/or caregivers of Alzheimer patients, and was designed to be completed by the caregiver. The final form of the Progressive Deterioration Scale contains 27 quality-of-life scales. The items come from the following content areas: extent to which a patient can leave his immediate neighbourhood, ability to safely travel distances alone, confusion in familiar settings, use of familiar household implements, participation/enjoyment of leisure/cultural activities, extent to which patient does household chores, involvement in family finances, budgetting, etc., interest in doing household tasks, travel on public transportation, self-care and routine tasks, social function/behaviour in social settings.

Validity and reliability:

The Progressive Deterioration Scale appeared to be reliable on a test-retest basis with a time interval of one week between administrations. The correlation was significant at the $p < 0.01$ level. Equally the scale appeared to differentiate between stages of patients as measured by the Global Deterioration Scale (a classification scale for Alzheimer patients). As a result, the scale should be sensitive to changes in the severity of the disease of Alzheimer patients.

List of references:

DeJong, R., Osterlund, O.W., Roy, G.W.
Measurement of quality-of-life changes in patients with Alzheimer's disease.
Clinical Therapeutics; 11, 1989, no. 4, p. 545-554
Nivel (C 1975)

> A scale was developed that appears to be a reliable and sensitive indicator of differences and changes in the quality of life of patients with Alzheimer's disease (AD) as the disease progresses. The instrument was generated from interviews with spouses and/or caregivers of AD patients, and was designed to be completed easily by the caregiver. The bipolar analog scale was based on the daily behavior of AD patients and was developed in three steps involving interviews with caregivers (step I), testing of questionnaires, and validation of the instrument. At step II, four iterative trials, each with a different version of the questionnaire, were performed for validation. The final form of the Progressive Deterioration Scale (PDS) contained 27 quality-of-life factors and was cross-validated in a second, separate study. The Global Deterioration Scale (GDS) for cognitive function was used as the external criterion for the analysis of the quality-of-life scales. Statistical analysis indicates that the PDS provides a reliable, valid, and sensitive measure of changes in the quality of life as AD progresses. The PDS achieved 80% overall accuracy in discriminating non-AD elderly patients from patients in the early, middle, and late stages of AD. This scale may provide a useful means for clinical evaluation (phase III) of potential medications to alleviate the symptoms of AD.

QUALITY OF LIFE INDEX

Source:

Ferrans, C.E., Powers, M.J.
Psychometric assessment of the quality of life index.
Research in Nursing & Health; 15, 1992, p. 29-38

Purpose:

The Quality of Life Index is developed to measure the quality of life of healthy persons as well as those who have various illnesses. The initial instrument consisted of items applicable to all persons. Items related to specific illnesses were added to the basic instrument to produce illness-related versions of the QLI.

Description:

The Quality of Life Index is a 64-item measure, composed of two parts: part I measures satisfaction with various domains of life, and part II measures the importance of the same domains to the individual subject. Subjects respond to the items on a 6-points scale: for part I the scale ranges from 'very satisfied' to 'very dissatisfied', and for part II it ranges from 'very important to 'very unimportant'. For the dialysis version, three items relate to dialysis treatment and assess the satisfaction and importance of the treatment. An overall quality of life score is calculated by weighting each satisfaction response with its paired importance response.

Validity and reliability:

Initial reliability and validity assessments were performed with 88 graduate students and 37 dialysis patients[14]. Concurrent validity was supported by correlations of 0.76 (graduate students) and 0.65 (dialysis patients) between scores on the QLI and an overall satisfaction with life question. Cronbach's alphas of 0.93 for the graduate students and 0.90 for the dialysis patients provided support for internal consistency reliability. Test-retest correlations of 0.87 with a 2-week interval (graduate students) and 0.81 with a 1-month interval (dialysis patients) supported stability reliability.

List of references:

Ferrans, C.E., Powers, M.J.
Psychometric assessment of the Quality of Life Index.
Research in Nursing and Health; 15, 1992, no. 1, p. 29-38
Nivel (C 1976)

> The purpose of this study was to examine the psychometric properties of the Quality of Life Index (QLI). The sample consisted of 349 patients selected randomly from the adult, in-unit hemodialysis patient population of Illinois. Factor analysis was used to examine the underlying factor structure. A four-factors solution best fit the data, indicating that there were four dimensions underlying the QLI: health and functioning, socioeconomic, psychological/spiritual, and family. Factor analysis of the four primary factors revealed one higher order factor, representing quality of life. Construct validity also was supported by the contrasted groups approach. As predicted, it was found that those who had higher incomes had significantly higher quality of life scores on the social and economic subscale. Support for convergent validity was provided by a strong correlation (r = 0.77) between scores from the QLI and an assessment

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[14] Ferrans, C., Powers, M.
Quality of Life Index: development and psychometric properties.
Advances in Nursing Sciences; 8, 1985, no. 1, p. 15-24

of life satisfaction. Findings supported the internal consistency reliability of the entire QLI (alpha = 0.93) and the four subscales (alphas = 0.87, 0.82, 0.90, 0.77).

Parker, D.F., Levinson, W., Mullooly, J.P., Frymark, S.L.
Using the Quality of Life Index in a cancer rehabilitation program.
Journal of Psychosocial Oncology; 7, 1989, no. 3, p. 47-62
KNAW

Examined are the usefulness of the Quality of Life Index (QLI) in a clinical setting. 283 patients (aged 20-95 yrs) referred to a cancer rehabilitation service during a 1-year period were assessed, and the physicians who referred them were surveyed to determine their opinions about the usefulness of the QLI. Although significant variations were found in the QLI scores by type of cancer, all subjects scored highest in the support category. The QLI is useful in identifying patterns and areas of need, rather than in making decisions about the care of individual patients.

QUALITY OF WELL-BEING SCALE

Source:

Teeling Smith, G.
Measuring Health: a practical approach.
Chichester: John Wiley & Sons 1988.

Purpose:

The measurement of actual performance and preference in the elderly.

Description:

The Quality of Well-Being Scale consists of three ordinal scales on dimensions of daily activity: mobility, physical activity and social activity. In its current form it consists of an observer-completed instrument which requires a 10 to 15 minute interview, and is determined by taking the average score for a 4-day period.

List of references:

Anderson, J.P., Bush, J.W., Berry, C.C.
Internal Consistency Analysis: a method for studying the accuracy of function assessment for health outcome and quality of life evaluation.
Journal of Clinical Epidemiology; 41, 1988, no. 2, p. 127-137
Nivel

> Social, mental and physical function are major components of health outcomes and health related life quality, but the accuracy of function measurement is difficult to study rigorously. Internal Consistency Analysis (ICA) uses multiple sources of evidence from a survey interview to study the accuracy of a classification. It was developed to study function classifications for a general health outcome measure, the Quality of Well-being (QWB) scale. ICA is described and evidence of its utility in improving the classifications needed for the QWB is presented.

ROTTERDAM SYMPTOM CHECKLIST

Source:

J.C.J.M. de Haes, F.C.E. Knippenberg, J.P. Neijt
Measuring psychological and physical distress in cancer patients: structure and application of the Rotterdam Symptom Checklist.
British Journal of Cancer; 62, 1990, p. 1034-1038

Purpose:

The Rotterdam Symptom Checklist was developed, primarily, as a tool to measure the symptoms reported by cancer patients participating in clinical research. It is also applicible to monitor the levels of the patient's anxiety and depression and reflects the presence of psychological illness.

Description:

This checklist was constructed on the basis of data analysis based on three studies, in which different checklists were used: the Hopkins Symptom Checklist, a symptom checklist used in a study of breast cancer, and a Dutch version of the Symptom Distress Scale applied to a group of hospitalized cancer patients. Factor loading, relevance according to experts in oncology, and distribution of answers, yielded a 34-item list comprising physical and psychological symptoms. Patients were asked to indicate the degree to which they had been bothered by the indicated symptoms over the past three days, on a four-point rating scale (categories: not at all, a little, quite a bit, very much). Eight items that refer to the activities of daily living, were added to cover the patient's functional status. Completion takes about ten minutes.

Validity and reliability:

The Rotterdam Symptom Checklist (RSCL) was originally validated in a Dutch study by de Haes et al.[15] in 1983. The stability of the structure of the RSCL was assessed in principal component analyses in three studies by de Haes et al.: one concerning cancer patients during either chemotherapy or follow-up (n = 86), one done in patients undergoing chemotherapy for advanced ovarian cancer (n = 56), and the third dealing with cancer patients under treatment, disease-free 'patients', and 'normal' controls (n = 611). The psychological dimension proved to be stable across populations. A scale based on this factor was highly reliable (Cronbach's alpha 0.88-0.94). The reliability of the physical distress scales is good (0.71-0.88).

List of references:

Greer, S., Moorey, S., Baruch, J.D., Watson, M., Robertson, B.M., Mason, A., Rowden, L., Law, M.G., Bliss, J.M.
Adjuvant psychological therapy for patients with cancer: a prospective randomised trial.
British Medical Journal; 304, 1992, no. 6828, p. 675-680
Nivel

> The objective was to determine the effect of adjuvant psychological therapy on the quality of life of patients with cancer by means of a prospective randomised controlled trial comparing the quality of life of patients receiving psychological therapy with that of patients receiving no therapy, measured before therapy, at eight weeks, and at four months of follow up. Subjects were 174 patients aged 18-74 attending hospital with a confirmed diagnosis of malignant disease, a life expectancy of at least 12 months, or scores on various measures of psychological morbidity above previously defined cut off points. The Hospital anxiety and depression scale, mental adjustment to cancer scale, Rotterdam symptom checklist, psychosocial adjustment to illness scale were used. Patients completed the eight week trial. Follow-up-data at four months were obtained for 137 patients (79%). At eight weeks, patients receiving therapy had significantly higher scores than control patients on fighting spirit and significantly lower scores on helplessness, anxious preoccupation, fatalism. anxiety, psychological symptoms, and on orientation towards health care. These differences indicated improvement in each case. At four months, patients receiving therapy had significantly lower scores than

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[15] de Haes, J.C.J.M. et al.
Klachtenlijst voor kankerpatiënten, eerste ervaringen.
Nederlands Tijdschrift voor Psychologie; 38, 1983, p. 403

controls on anxiety, psychological symptoms, and psychological distress. Clinically, the proportion of severely anxious patients dropped from 46% at baseline to 20% at eight weeks and 20% at four months in the therapy group, and from 48% to 41% and to 43% respectively among controls. The proportion of patients with depression was 40% at baseline, 13% at eight weeks, and 18% at four months in the therapy group and 30%, 29%, and 23% respectively in controls. Conclusions: Adjuvant psychological therapy produces significant improvement in various measures of psychological distress among cancer patients. The effect of therapy observed at eight weeks persists in some but not all measures at four month follow up.

Haes, J.C. de, Knippenberg, F.C. van, Neijt, J.P.
Measuring psychological and physical distress in cancer patients: structure and application of the Rotterdam Symptom Checklist.
British Journal of Cancer; 62, 1990, no. 6, p. 1034-1038
Nivel (C 1977)

Use of the Rotterdam Symptom Checklist (RSCL) to measure psychological and physical distress as experienced by cancer patients, is discussed in this paper. The stability of the structure of the RSCL was assessed in principal component analyses in three studies: one concerning cancer patients during either chemotherapy or follow-up (n = 86), one done in patients undergoing chemotherapy for advanced ovarian cancer (n = 56), and the third dealing with cancer patients under treatment, disease-free 'patients', and 'normal' controls (n = 611). The psychological dimension proved to be stable across populations. A scale based on this factor was highly reliable (Cronbach's alpha 0.88-0.94). The physical distress is reflected by several dimensions in a homogeneous population (pain, fatigue, gastrointestinal complaints) and undimensionally in a heterogeneous population. Reliability of the physical distress scales is good (0.71-0.88). The current components of the RSCL and the use of individual and disease specific symptoms are discussed.

SANDOZ CLINICAL ASSESSMENT GERIATRICS

Source:

Kane, R.A., Kane, R.L.
Assessing the elderly.
Lexington: D.C. Heath and Company 1981.

Purpose:

The Sandoz Clinical Assessment-Geriatrics (SCAG) was developed by Sandoz Chemicals for use in psychopharmaceutical research.

Description:

This measurement scale contains 18 items, rated by professionals on a 7-point Likert scale from 'not present' to 'severe'. The 18 items are: mood depression, confusion, mental alertness, motivation, irritability, hostility, bothersomeness, indifference to surroundings, unsociability, uncooperativeness, emotional lability, fatigue, self-care, appetite, dizziness, anxiety, impairment of recent memory and disorientation.

Validity and reliability:

The SCAG subscores correlated highly with analogues subscores of the Mental Status Examination Record and the SCAG ratings themselves differentiated among four groups: a healthy group (N=20), a minimally demented group (N=5), a severely demented group of psychiatric inpatients (N=15), and a group of psychiatric inpatients with primary affective disorders (N=11).
Reliability was measured by an interrater-reliability procedure that involved four psychiatrists and eight patients. The average coefficient of reliability across all items was 0.75. Most items achieved satisfactory reliability under this method, with notable exceptations for irratibility (0.39), fatigue (0.27), appetite (0.24) and anxiety (0.32).[16]

List of references:

Bella, R., Biondi, R., Raffaele, R., Pennisi, G.
Effect of acetyl-L-carnitine on geriatric patients suffering from dysthymic disorders.
International Journal of Clinical Pharmacology Research; 10, 1990, no. 6, p. 355-360
Nivel (C 1978)

> Sixty senile subjects (60-80 years old) with dysthymic disturbances as defined by DSM III were randomized into two homogeneous groups, one of which was given acetyl-L-carnitine while the other received a placebo. After a washout phase of one week, each patient was evaluated by scoring on the Hamilton Rating Scale for Depression and the Beck Depression Inventory, as well as the Sandoz Clinical Assessment-Geriatric.

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[6] Shader, R.I., Harmatz, J.S., Salzman, C.
A new scale for clinical assessment in geriatric populations: Sandoz Clinical Assessment-Geriatric.
Journal of the American Geriatric Society; 22, 1974, p. 107-113

These tests were administered at the beginning of the trial, prior to drug administration, and repeated during the treatment phase after 30 and 60 days. The results showed that treatment with acetyl-L-carnitine induced a significant reduction, as compared to the placebo (p less than 0.002), in the severity of depressive symptoms and also a significant improvement (p less than 0.0027) in the items measuring the quality of life.

SELF-EVALUATION OF LIFE FUNCTION SCALE

Source:

Linn, M.W., Linn, B.S.
Self-Evaluation of Life Function Scale: A short, comprehensive self-report of health for elderly adults.
Journal of Gerontology; 39, 1984, no. 5, p. 603-612

Purpose:

To fulfil the need for a comprehensive, short, self-report scale that covers indicators of physical, psychological, and social function and that can be used in research and screening where time and money are considerations.

Description:

The scale contains 54 statements/questions. The following areas are covered by them: physical disability, symptoms of ageing, self-esteem, mobility, depression, social satisfaction, and personal control. Except for a number of diagnoses and medications, a uniform scoring system was adopted. The questionnaire should be self-administered which would take about half an hour.

Validity and reliability:

Linn, M.W. and Linn, B.S. investigated the validity and reliability in two studies among 826 persons of age 60 and older. The factors seem stable and reliable to discriminate between various groups in an expected direction. The scale seems to be sensitive to change, although a more definite study of longer duration is needed.

List of references:

Linn, M.W., Linn, B.S.
Self-Evaluation of Life Function Scale: A short, comprehensive self-report of health for elderly adults.
Journal of Gerontology; 39, 1984, no. 5, p. 603-612
Nivel (C 1979)

> The development of a 54-item, multidimensional, self-report scale to measure physical, emotional, and social function is described in regard to reliability, validity, and factor structure. The scale appears to measure the following dimensions: physical disability, symptoms of aging, self-esteem, social satisfaction, depression, and personal control. The scale was derived from two studies of 826 persons aged 60 and older. The scale is recommended when a comprehensive, relatively short, self-report assessment is needed for screening or research purposes.

SICKNESS IMPACT PROFILE

Source:

Bergner, M. et al.
The Sickness Impact Profile: validation of a health status measure.
Medical Care; 14, 1976, no. 1, p. 57-67

Bergner, M.
Development, testing, and use of the Sickness Impact Profile.
In: Walker, S.R., Rosser, R.M.
Quality of life: assessment and application.
Lancaster: MTP Press Limited. 1987.

Bruin, A.F. de, Witte, L.F. de, Stevens, F., Diederiks, J.P.M.
Sickness Impact Profile: The state of the art of a generic functional status measure.
Social Science and Medicine; 35, 1992, no. 8, p. 1003-1014

Jacobs, H.M., Luttik, A., Touw-Otten, F.W., de-Melker, R.A.
The sickness impact profile; results of an evaluation study of the Dutch version
Nederlands Tijdschrift voor Geneeskunde; 134, 1990, no. 40, p. 1950-1954

Purpose:

The SIP is a behaviourally based measure of the impact of sickness. It was developed in order to provide a measure of health status that would be useful in the assessment of individuals or populations with chronic as well as acute illness. Such a measure was thought to be necessary in order to evaluate clinical interventions and changes in health services delivery, to help in planning services, and to examine cost-effectiveness of new therapies.

Description:

This instrument contains 136 items that are divided into 12 categories. Three of these categories can be aggregated into a physical dimension; four others into a psychosocial dimension. The remaining five categories cannot be aggregated into a coherent and consistent dimension. The 12 categories are: sleep and rest, eating, work, housekeeping, recreation and pastime, ambulation, mobility, body care and movement, social interaction, alertness behaviour, emotional behaviour and communication. A percentage score may be obtained for the entire measure, for each of the 12 categories and for the two dimensions. The SIP may be self or interviewer administered. In either case, it is meant to be answered by the respondent about himself. The administration of the interview will cost about thirty minutes.

Validity and reliability:

The SIP has been validated by a lot of researchers in several countries. It is widely used and known to be valid and reliable. The five basic types of validity that are found in literature: content validity (the extent to which the items adequately represent the total property being measured), criterion validity (comparison of scores on the instrument with external variables that intend to measure the attribute being studied), construct validity (measurement of abstract theoretical concepts), external validity and internal validity were given exhaustive treatment by A.F. de Bruin et al. In their article a review is presented of the literature on the SIP. The instrument appears to be a reliable instrument with sufficient content validity, shows good correlations with other health status and functional status measures.

List of references:

Traver, G.A.
Measures of symptoms and life quality to predict emergent use of institutional health care resources in chronic obstructive airways disease.
Heart-Lung; 17, 1988, Nov 6 Pt 1, p. 689-697
Nivel
-abstract on page 18-

Deniston, O.L., Kneisley, J., Hawthorne, V.M., Port, F.K.
Assessment of quality of life in end-stage renal disease.
Health Services Research; 24, 1989, no. 4, p. 555-578
Nivel
-abstract on page 64-

Deniston, O.L., Luscombe, F.A., Buesching, D.P., Richner, R.E., Spinowitz, B.S.
Effect of long-term epoetin beta therapy on the quality of life of hemodialysis patients.
ASAIO-Trans; 36, 1990, M157-M160
Nivel (C 1980)

> Differences in quality of life were observed using two separate patient populations with end-stage renal disease who were on maintenance hemodialysis. The first population (91 patients) received epoetin beta for an average of 18 months. The second population (96 patients) did not receive this therapy. The measured quality of life parameters included a number of global and psychological well-being measurements and the Sickness Impact Profile (SIP), as well as energy, activity levels, appetite, work, and sexual function. When adjusted for covariates (health status and demographics), 16 of 26 parameters were significantly higher (p less than 0.05) in patients receiving epoetin beta. All mean scores for global measurements were significantly higher. Significantly higher scores were also obtained for the total SIP and a psychosocial subscale, as well as for sleep, home management, recreation, emotional behavior, social interaction, ability to work, and energy. While not statistically significant, all of the remaining measurements were higher for epoetin beta than for untreated patients.

Bergman, B., Sullivan, M., Sorenson, S.
Quality of life during chemotherapy for small cell lung cancer. I. An evaluation with generic health measures.
Acta Oncology; 30, 1991, no. 8, p. 947-957
Nivel (C 1981)

> The Sickness Impact Profile (SIP) and the Hospital Anxiety and Depression scale (HAD) were used for assessment of physical and psychosocial functioning and emotional distress in patients with small cell lung cancer (SCLC) receiving chemotherapy. Treatment schedules extended over 12 months. Before treatment sixty-two patients, 36-80 years of age, completed the questionnaires and a selection of lung cancer symptom items. Approximately 50% of the patients reported clinically significant physical dysfunction, while emotional distress was reported by 25% and social restraints by 40%. Self-reported overall dysfunction, as assessed by SIP total index, was clinically significant in 60% of the patients. SIP physical and total indices were strongly related to WHO performance status (grade 0-4). The assessment was subsequently repeated every third month during the treatment period. Overall tumour

response rate was 82%. The changes of physical and psychosocial functioning, as assessed by SIP, were significantly related to tumour response, although a persistent substantial overall dysfunction was shown among 50% of the responders after 3 months and among c. 40% after 6 months. In addition to tumour response, pain and appetite changes correlated with the change of overall SIP in multivariate analysis, implying the importance of pain control and appetite stimulating measures for patients with advanced cancer. Anxiety and depression, as measured by HAD, were reduced in 21 patients who completed 12 months chemotherapy, but only anxiety co-varied with tumour response. The results lend support to the use of the generic SIP and HAD as outcome measures in clinical research with SCLC patients receiving chemotherapy.

Rothman, M.L., Hedrick, S., Inui, T.
The Sickness Impact Profile as a measure of the health status of noncognitively impaired nursing home residents,
Medical Care; 27, 1989, no. 3 Suppl, p. S157-S167
Nivel

The feasibility, reliability (internal consistency), validity, and comprehensiveness of the Sickness Impact Profile (SIP) as a measure of the health status of a selected group of nursing home residents are assessed. 168 elderly veterans residing in community and Veterans Administration nursing homes responded to a questionnaire consisting of the SIP, an index of activities of daily living, the Life Satisfaction Index Z, and the Philadelphia Geriatric Center Morale Scale. In general, the subjects correctly interpreted instructions; reliability and validity were supported; and the SIP was found to provide a comprehensive assessment of physical function. Adding a measure of psychologic well-being to a study protocol involving this population may, however, provide additional useful information regarding this construct.

Longstreth, W.T., Nelson, L., Linde, M., Munoz, D.
Utility of the sickness impact profile in Parkinson's disease.
Journal of Geriatric Psychiatry and Neurology; 5, 1992, no. 3, p. 142-148
KNAW

The Sickness Impact Profile (SIP) is a questionnaire consisting of 136 items grouped into 12 categories and two dimensions (physical and psychosocial). To characterize its utility in Parkinson's disease (PD), the researchers administered the SIP to 44 consecutive clinic patients with PD. Compared to 44 age- and sex-matched control subjects, PD patients had their greatest dysfunction in the categories of mobility, communication, and home management. The two items that PD patients most commonly endorsed were, "I am having trouble writing or typing" (75%) and, "My sexual activity is decreased" (61%). In general, these treated PD patients had greater dysfunction in the psychosocial than physical dimensions. Two simple PD-specific scales correlated well with the physical dimension score but less so with the psychosocial dimension, suggesting that the SIP assesses more functional domains than the PD-specific scales used. The SIP holds some promise as a broad measure of functional status in PD patients.

Sullivan, M., Ahlmen, M., Bjelle, A.
Health status assessment in rheumatoid arthritis. I. Further work on the validity of the sickness impact profile.
Journal of Rheumatology; 17, 1990, no. 4, p. 439-447
RUU

In a cross-sectional, longitudinal study, 99 women with rheumatoid arthritis (RA) completed a well established health status measure, the Sickness Impact Profile (SIP), for diagnosis specific evaluation. Using traditional and self-reporting data, the researchers examined SIP relationships that described physical functioning. They related closely to clinical measures. Psychosocial functioning measured by SIP related specifically to mental health and arthritic pain. Importantly, the SIP was sensitive to 1-year pre and posttreatment changes showing both improvement and deterioration. When applied to patients with RA the SIP categories could be more appropriately aggregated, e.g., home management included in the Physical dimension and Communication omitted from the Psychosocial.

SPITZER QUALITY OF LIFE INDEX

Source:

Spitzer, W.O. et al.
Measuring the quality of life of cancer patients: a concise QL-Index for use by physicians.
Journal of Chronic Diseases; 34, 1981, p. 585-597

Purpose:

The quality of life index measures the well-being of especially cancer patients but also other patients could be evaluated according to the effects of treatment.

Description:

The quality of life index should be completed by a physician or other health professional. The patient is studied with respect to five domains of interest: activity, daily living, health, support, outlook. Each heading becomes a score 0, 1 or 2, which is determined according to observations over the past week.

On the basis of this information, a Quality of Life total is calculated. This can be realized in only a few minutes.

Validity and reliability:

The content validity (are the items representative for the domain to be measured?) was checked by patients, physicians, healthy people and researchers by judging the scope and design of the instrument.

List of references:

Grundmann, R., Said, S., Krinke, S.
Quality of life after rectal resection or extirpation. A comparison using different measurement parameters.
Deutsche Medizinisches Wochenschrift; 114, 1989, no. 12, p. 453-457
-abstract on page 17-

Barr, H., Krasner, N.
Prospective quality-of-life analysis after palliative photoablation for the treatment of malignant dysphagia.
Cancer; 68, 1991, no. 7, p. 1660-1664
Nivel
-abstract on page 32-

McGowan, I., Barr, H., Krasner, N.
Palliative laser therapy for inoperable rectal cancer--does it work? A prospective study of quality of life.
Cancer; 63, 1989, no. 5, p. 967-969
Nivel
-abstract on page 31-

Fox, E., Peace, K., Neale, T.J., Morrison, R.B., Hatfield, P.J., Mellsop, G.
"Quality of life" for patients with end-stage renal failure.
Renal Failure; 13, 1991, no. 1, p. 31-35
Nivel (C 1982)

> The assessment of health status and quality of life among chronically ill patients is an area of current scientific interest. This paper considers the utility of a short but comprehensive instrument to assess the quality of life for end-stage renal failure patients. the Spitzer QL-Index was completed by 8 nurses for all patients in the Wellington region currently being treated with home hemodialysis (n = 58); hospital hemodialysis (n = 13); and continuous ambulatory peritoneal dialysis (n = 37). Results indicated that home hemodialysis patients achieve the highest quality of life in comparison to the other two treatment modalities. It is concluded that the

QL-Index has some discriminative validity for this patient population, and its use may contribute to informed decision making by both patients and doctors.

Mold, J.W., Steinbauer, J.R., Wunder, S.C., Small, B.
Outpatient multidisciplinary geriatric assessment I.
Journal - Oklahoma State Medical Association; 80, 1987, no. 6, p. 367-371
KNAW

The investigators examined the correlates of the Quality of Life Index (QLI) in three samples of cancer patients: newly diagnosed, recipients of chemotherapy, and terminal. The relative importance of physical, emotional, social, and disease symptom characteristics in predicting the QLI was compared across samples. Despite differences in data collection approaches (telephone, personal interview, or paper and pencil) and differences in patient characteristics, the QLI was a robust construct with its central organizing principle being physical functioning. In all samples, functioning, symptoms, depression, and social support were significant predictors of the QLI, while age and cancer type were only minimally related. The QLI significantly differentiated between patients at different disease phases and measured more than physiological functioning. However analyses suggested that the dominant factor constraining the range of human psychosocial functioning was physical condition.

McClellan, W.M., Anson, C., Birkeli, K., Tuttle, E.
Functional status and quality of life: predictors of early mortality among patients entering treatment for end stage renal disease.
Journal of Clinical Epidemiology; 44, 1991, no. 1, p. 83-89
Nivel

The researchers investigated the association between functional status and quality of life in newly-entered dialysis patients and the subsequent risk of mortality. They enrolled the patients from 37 dialysis facilities in two south-eastern states (n = 294). Functional status was assessed by the Karnofsky Performance Scale (KPS) and quality of life by the Spitzer Quality of Life Index (SQLI). During a mean (SE) follow-up of 479.6 (109.4) days 49 patients (16.4%) of the cohort died. The mean KPS score (SE) for survivors was 7.31 (0.11) and for non-survivors was 5.89 (0.26), P less than 0.0001. The mean SQLI score (SE) for survivors was 6.74 (0.15) and non-survivors was 4.95 (0.28), p less than 0.0001. Strong gradients of the risk of mortality were found for both measurements. After controlling for other covariates including age, race, sex, primary cause of renal failure and the presence of comorbidity, both the KPS and SQLI scores were independently correlated with risk of mortality. It was conclude that functional status and quality of life are strong independent risk factors for subsequent mortality in new dialysis patients. These are easily measured indicators which may serve to predict subsequent risk of mortality or adjust case-mix estimates for comparisons between dialysis populations.

STOCKTON GERIATRIC RATING SCALE

Source:

Meer, B., Baker, J.A.
The Stockton Geriatric Rating Scale.
Journal of Gerontology; 21, 1966, p. 392-403

Purpose:

Meer and Baker designed the Stockton Geriatric Rating Scale (SGRC) to measure the severity of impairment among institutionalized older persons.

Description:

Impairment is measured in two dimensions: physical disability and psychological aspects of behaviour. The SGRC consists of 33 items, which raters use to evaluate physical and psychological impairment among institutionalized elderly people. The authors indicate that health care personnel are the most likely candidates for raters. The SGRC-scores are based solely upon the behavioural ratings of observers; self-reports from subjects are not solicited or recorded.

Validity and reliability:

Taylor and Bloom[17] report 'significant' agreement between mean SGRS scores for given geriatric wards and supervisors' ratings of such wards. Meer and Baker present evidence that the SGRS has predictive validity.

List of references:

Gilleard, C.J., Pattie, A.H.
The Stockton Geriatric Rating Scale: A shortened version with British normative data.
British Journal of Psychiatry; 131, 1977, p. 90-94
RUU

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[17] Taylor, H.G., Bloom, L.M.
Cross-validation and methodological extension of the Stockton Geriatric Rating Scale.
Journal of Gerontology; 29, 1974, p. 190-193.

Presents evaluative data on a shortened form of the Stockton Geriatric Rating Scale, which was found to be as effective as the original version in discriminating among the elderly. The results for 400 people in the care of hospital or social services provide provisional normative data for the use of the scale, which should be of value in assessing the behavioral competence of the elderly on an individual and group basis.

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3. Measurement of Life Satisfaction

BRADBURN AFFECT BALANCE SCALE

Source:

Bradburn, N.M.
The structure of Psychological Well-Being.
Chicago: Aldine Publishing Company, 1969.

Purpose:

The Affect Balance Scale was designed as an indicator of mental health in surveys of large samples. With the help of time series, the instrument should be used to detect relation between psychological states and social change.

Description:

According to Bradburn, happiness is the balance between positive and negative feelings. This underlying idea is the basis of the scale which was developed here. The scale consists of ten specific questions; five concerning positive feelings, and five concerning negative ones. Three scores are generated: a positive affect score (PAS), a negative affect score (NAP), and an affect balance score (PAS - NAS + 5). The respondent is asked to answer with yes or no on the ten feelings scale with respect to his experiences over the past week.

Validity and reliability:

In a study of Bild and Havighurst[18] among elderly Chicagoans a correlation of r=0.66 was found with an 18-item version of the Life Satisfaction Index-A. George and Bearon found correlations with other morale scales and a modified version of the Life Satisfaction Index-A of between 0.61 and 0.64. With respect to the reliability, in a test-retest investigation Bradburn found a correlation of 0.76 in a 'three days apart' test.

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[18] Bild, B.R., Havighurst, R.J.
Life Satisfaction.
Gerontologist; 16, 1976, p. 70-75

List of references:

Deniston, O.L., Kneisley, J., Hawthorne, V.M., Port, F.K.
Assessment of quality of life in end-stage renal disease.
Health Services Research; 24, 1989, no. 4, p. 555-578
Nivel
-abstract on page 64-

Kempen, G.I.
Psychometric properties of Bradburn's Affect Balance Scale among elderly persons.
Psychological Reports; 70, 1992, no. 2, p. 638
Nivel (C 1983)

> Some psychometric properties of the Affect Balance Scale have been tested on a random sample of 354 elderly people in the Netherlands. Internal reliability estimates were comparable with prior ones, and the 8 week test-retest reliability was reasonable.

Stacey, C.A., Gatz, M.
Cross-sectional age differences and longitudinal change on the Bradburn Affect Balance Scale.
Journal of Gerontology; 46, 1991, no. 2, p. 76-78
RUU

> Cross-sectional age differences and longitudinal change were examined on psychological well-being, positive affect, and negative affect, as measured by the Bradburn Affect Balance Scale. Data were collected from 1,159 participants in 1971 and 1985. Cross-sectional analyses showed age differences: older cohorts reported greater overall well-being but lower levels of both positive and negative affect when compared to younger respondents. Longitudinal analyses indicated small but significant changes toward decreased positive and negative affect but increased overall well-being. Negative affect had the strongest effect size. Positive and negative affect showed different patterns of change for different age groups. Taken together, cross-sectional and longitudinal findings suggest that change in affect variables is age-related, although these changes are relatively small. More evident was a pattern of correlational stability with age. Finally, the pattern of the results supports a two-factor theory of psychological well-being.

Bowsher, J.E., Gerlach, M.J.
Personal control and other determinants of psychological well-being in nursing home elders.
Sch-Inq-Nurs-Pract.; 4, 1990, no. 2, p. 91-102, discussion p. 103-108
KNAW

The purpose of this correlational study was to identify predictors of psychological well-being in nursing home elders. Predictors considered were two dimensions of personal control, physical health, functional health, socioeconomic status, length of stay in the nursing home, and interaction variables. The nonrandom sample consisted of 302 cognitively intact nursing home elders with poor to excellent self-rated physical health. The instruments used included the Life Satisfaction Index A, the Affect Balance Scale, the Desired Control Measure, The Index of Activities of Daily Living, and The Two Factor Index of Social Position. Regression analysis demonstrated that the dimensions of personal control and self-rated physical health explained 33% (p less than 0.001) of the variance of psychological well-being. The findings suggested predictor variables to guide the promotion and maintenance of psychological well-being in the subjects of this sample.

Moriwaki, S.Y.
The Affect Balance Scale: A validity study with aged samples.
Journal of Gerontology; 29, 1974, no. 1, p. 73-78
RUU

Validated were the Affect Balance Scale (ABS) and its 2 subscales, the Positive Affect Scale (PAS) and the Negative Affect Scale (NAS), through known groups analysis and independent criteria. Comparisons of the mean scores of 2 elderly samples, 8 psychiatric outpatients and 19 normal subjects indicated significant discriminability of these scales. Different criteria correlated with each subscale, i.e., the PAS correlated positively with morale and avowed happiness while the NAS correlated with poorer mental health and greater role loss. The pattern of correlations indicate that the ABS was the best overall measure of psychological well-being. Further empirical support for the 2-dimensional base of the ABS was indicated by the nonsignificant correlation between the PAS and the NAS. While the ABS is applicable to an aged population, it is noted that differential age norms should be developed to increase its utility in comparing various age groups with age-related change.

Liang, J.
A structural integration of the Affect Balance Scale and the Life Satisfaction Index A.
Journal of Gerontology; 40, 1985, no. 5, p. 552-561
Nivel (C 1984)

This study integrates two popular measures of subjective well-being: the Affect Balance Scale (ABS) and the Life Satisfaction Index A (LSIA). Eight ABS items and seven LSIA items are hypothesized to measure four dimensions including congruence, happiness, positive affect, and negative affect. In addition, a second-order factor identified as subjective well-being is postulated to account for the correlations among these four dimensions. This model is examined empirically by using data from the Harris

1974 National Council on Aging survey, Myths and Realities of Aging in America. The proposed formulation is supported and consistently replicated across four randomly divided subsamples.

Kempen, G.I.J.M., Ormel, J.
The assessment of psychological well-being among the elderly.
Tijdschrift voor Gerontologie en Geriatrie; 23, 1992, p. 225-235
Nivel

The result of a comparison of measures assessing psychological well-being in a random sample of 354 elderly people in the city of Groningen are presented: Positive Affect and Negative Affect of the Affect Balance scale, Positive Well-Being, and the Seven Point Satisfaction Rating. None of the instruments is based on a clear concept of well-being. The results show reasonable psychometric properties of most measures.

Schrama, Y.C., Krediet, R.T., de Rooy Roggekamp, M.C., Arisz, L.
Relation between clinical condition and quality of life in patients on hemodialysis, a clinimetric study.
Nederlands Tijdschrift voor Geneeskunde; 135, 1991, no. 26, p. 1182-1185
Nivel

To gain more insight into the quality of life of chronic haemodialysis patients, a clinimetric study was performed in 60 patients treated in a centre for active haemodialysis: Diatel, Amsterdam. The value of a number of objective and subjective test methods was also analysed. The mean age was 52 years, 57% were males and the mean time on dialysis treatment was 68 months. The objective tests were the Karnofsky index, the Active Clinical Problems Score and the Chemistry Abnormality Score. The data were obtained from the physician in charge and the medical record of the patient. The subjective information was gained during an interview based on the following tests: the Complaints score, Affect Balance Scale, Index of Well-being and Nottingham Health Profile. The physical condition of the patients depended on both age and comorbidity and was generally good; 6% of the patients had a Karnofsky score of less than or equal to 60. For the Index of Well-being patients scored lower than healthy people (p less than 0.01). The level of this index depended on age, employment and civil status. The subjective tests were significantly interrelated, the objective tests also but to a lesser extent. No correlations were found between the objective status of the patient and his emotional well-being. In conclusion, active haemodialysis patients appeared to have a fairly good quality of life. Of all tests the Affect Balance Scale, the Index of Well-being and the Complaints score were found to be the most useful, probably also for future longitudinal research.

GENERAL WELL-BEING SCHEDULE

Source:

Dupuy, H.J.
Self-representations of general psychological well-being of american adults.
Paper presented at American Public Health Association Meeting.
Los Angeles, California, October 17, 1978.

Purpose:

The General Well-being Schedule offers a brief but broad-ranging indicator of subjective feelings of psychological well-being and distress for use in community surveys. (Mc Dowell)

Description:

The General Well-Being Schedule is a self-administered questionnaire which contains 18 questions about 6 fields of interest. These may be labelled by the terms anxiety (nervousness, stress, anxiety, relaxed/tense), depression (sad, down-hearted, depressed), positive well-being (feeling in general, life satisfaction, interesting daily life), self-control (firm control of behaviour, afraid of loosing mind or of loosing control, emotional stability), vitality (waking fresh, feeling tired, energy level) and general health (bothered bodily disorders, being concerned about health). All questions have to be answered in view of experiences over the past month. The administration time is about 15 minutes.

Validity and reliability:

There is considerable evidence for the correlation validity of the General Well-being Schedule. In a validation study of Fazio[19] the schedule total score correlated 0.47 with an interviewer's rating of depression, 0.66 with the Zung Depression Scale and 0.78 with the Personal Feelings Inventory-Depression. The average correlation was 0.64 with three anxiety scales. Fazio mentioned in his study internal consistency coefficients of 0.91 and 0.95 for males respectively females.

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[19] Fazio, A.F.
A concurrent validational study of the NCHS General Well-Being Schedule.
Vital and Health Statistics Series 2, no. 73.
DHEW Publication No. (HRA) 78-1347, 1977.

List of references:

Himmelfarb, S., Murrell, S.A.
Reliability and validity of five mental health scales in older persons.
Journal of Gerontology; 38, 1983, no. 3, p. 333-339
Nivel (C 1985)

> Five scales were assessed as mental health measures for older persons: the General Well-Being Schedule, the Affect Balance Scale, the Center for Epidemiological Studies Depression Scale, the LSI-Z Life Satisfaction Scale and the Trait-Anxiety Inventory. These scales were administered to a community sample of 279 older persons who were in psychiatric inpatient units.

Deniston, O.L., Kneisley, J., Hawthorne, V.M., Port, F.K.
Assessment of quality of life in end-stage renal disease.
Health Services Research; 24, 1989, no. 4, p. 555-578
Nivel

> Ten different multi-item indexes and nine single-item measures were used to assess the quality of life of patients undergoing one of four major modalities of treatment for end-stage renal disease (ESRD). Assessments were made on a population-based sample of Michigan patients with onset of ESRD after November 1, 1981, during the period May 1984 to September 1986. The nature of these measures is described and correlations among them are reported. The correlations suggest that these indexes tend to represent either function or feeling, with moderate relationships within the two clusters but little between them. Findings are also reported in terms of age, race, and sex. Depending on the measure chosen to assess quality of life, different conclusions about the relationship of quality of life to these demographic characteristics will be reached. These conclusions may help readers think more critically about the nature of quality of life in arriving at judgments on the relative validity of these different measures.

KUTNER MORALE SCALE

Source:

Kutner, B. et. al.
Five hundred over sixty: a community in aging.
New York: Russell Sage Foundation, 1956.

Purpose:

The Kutner Morale Scale was developed as an indicator of adjustment for use in surveys which concern the elderly in residents.

Description:

According to the authors, morale is a mental state or set of dispositions which condition one's response to problems of daily living. The scale consists of seven items, five of which are open-ended. A respondent's score is determined according to the number of affirmative responses given to items that suggest high morale. The measure is intended for interview administration. Although rarely used in its original form, this instrument has served as a point of departure for later instrument development.

Validity and reliability:

Evidence concerning the validity is quite limited.

List of references:

Kutner, N.G., Brogan, D., Kutner, M.H.
End-stage renal disease treatment modality and patients' quality of life. Longitudinal assessment.
American Journal of Nephrology; 6, 1986, no. 5, p. 396-402
Nivel (C 1986)

> Quality of life assessments were obtained at two 18-month follow-up intervals from 97 end-stage renal disease patients. Data were compared for three stable treatment groups (transplant, home hemodialysis, in-center hemodialysis) and for two transfer treatment groups (hemodialysis to transplant, hemodialysis to continuous ambulatory peritoneal dialysis). Home hemodialysis patients demonstrated the highest quality of life and lowest hospitalization rates over time. Transplant patients had higher employment and perceived health status but not necessarily higher subjective quality of life as compared to in-center hemodialysis patients, and transplant patients experienced more hospitalization. At follow-up, hemodialysis patients who obtained transplants assessed their quality of life as higher than did hemodialysis patients who went on continuous ambulatory peritoneal dialysis.

LIFE SATISFACTION INDEX Z

Source:

Wood, V. et. al.
An analysis of a short self-report measure of life satisfaction: correlation with rater judgments,
Journal of Gerontology; 24, 1969, p. 465-469

Purpose:

The index was developed to measure life satisfaction in older samples. As a multidimensional instrument it contains more than a sense of congruence between aspirations and achievements.

Description:

The Life Satisfaction Index-Z is a modification of the Life Satisfaction Index-A. It consists of 13 items, derived from the LSI-A.

Validity and reliability:

Wood et al. reported a correlation of 0.57 between the LSI-Z and Life Satisfaction Ratings.

List of references:

Rothman, M.L., Hedrick, S., Inui, T.
The Sickness Impact Profile as a measure of the health status of noncognitively impaired nursing home residents.
Medical-Care; 27, 1989, no. 3 Suppl, p. S157-S167
Nivel
-abstract on page 52-

Stock, W.A., Okun, M.A.
The construct validity of life satisfaction among the elderly.
Journal of Gerontology; 37, 1982, no. 5, p. 625-627
RUU

> A construct validation study of life satisfaction was completed with a modified random area probability sample of 325 older persons (M=73, SD=8.2) residing in the Phoenix metropolitan area. Internal consistency reliability estimates for the Life Satisfaction Index-Z and the Affect Balance Scale were consistent with previous reports. Within self-ascribed

handicapped and nonhandicapped groups, six life satisfaction measures generally correlated more highly with each other than with an alcohol use measure, suggesting adequate convergent-discriminant validity. Finally, the handicapped group had lower life satisfaction than the nonhandicapped group, and stepdown F tests indicated some redundancy among the life satisfaction measures.

Magilvy, J.K.
Quality of life of hearing-impaired older women.
Nursing Research; 34, 1985, no. 3, p. 140-144
Nivel (C 1987)

A survey of 66 hearing-impaired older women aged 54 to 96 years interviewed at home examined major influences on quality of life experienced by 27 prevocationally deaf and 39 later onset subjects. A causal model was specified; the predictors of quality of life included age, age at onset of hearing loss, financial adequacy, social hearing handicap, perceived health, and functional social support. The model proposed that health, social support, hearing handicap, and financial adequacy would directly affect quality of life as well as mediate the effect of the demographic variables, age and age at onset of loss, on this outcome. Later onset subjects were hypothesized to have lower quality of life due to increased social hearing handicap, decreased health, and decreased functional social support. Results of the path analysis showed the best predictors of quality of life to be social hearing handicap, functional social support, and perceived health. The later onset group had an overall lower perception of quality of life, this relationship being mediated as predicted. Generally, the hypothesized causal model was supported with 34% of variance explained. Descriptive findings also supported a difference in social hearing handicap between the two groups, yielding several implications for nursing interventions.

LIFE SATISFACTION INDEX WELL-BEING

Source:

James, O., Davies, A.D., Ananthakopan, S.
The life Satisfaction Index Well-Being: its internal reliability and factorial composition.
British Journal Psychiatry; 1986 Nov; 149: 647-650

Purpose:

The Life Satisfaction Index Well-Being (LSI-W) has been adapted from the Life Satisfaction Index of Neugarten for use in a British elderly population as an indicator of affect and subjective well-being.

Description:

The index consists of eight items that are derived from the 20-item Life Satisfaction Index-A (Neugarten et al. 1961) by means of item and factor analysis. There are two four-item subscales: acceptance contentment and achievement fulfillment. These scales assess current contentment and satisfaction with past achievement respectively. When summed, the subscales provide an overall measure of well-being.

Validity and reliability:

The LSI-W was administered to 155 elderly people living in a rural community, as part of a study of life stress and depression (James et al.). The inter-item correlations ranged from 0.03 to 0.43, with a mean of 0.19. The item-total correlations were all above 0.20 with one exception.

List of references:

James, O., Davies, A.D., Ananthakopan, S.
The life satisfaction index--well-being: its internal reliability and factorial composition.
British Journal Psychiatry; 149, 1986, p. 647-650
Nivel (C 1988)

> The internal consistency and factorial composition of the eight-item Life Satisfaction Index--Well-being, adapted for use with elderly British samples, were examined. Cross-validation was carried out with a randomly drawn community sample of 155 rural people aged 65-89 years. The scale was found to have acceptable internal reliability, but may require modification.

LIFE SATISFACTION IN THE ELDERLY SCALE

Source:

Salamon, M.J., Conte, V.A.
The Life Satisfaction in the Elderly Scale.
Odessa, Florida: Psychological Assessment Resources 1984.

Purpose:

The Life Satisfaction in the Elderly Scale was designed as a multi-factor scale to measure the entire domain of life satisfaction and thereby quality of life in older adults.

Description:

The Salamon-Conte Life Satisfaction in the Elderly Scale (SCLSES) examines the influence of the following 8 categories: pleasure in daily activities, meaningfulness of life, to what extent desired goals are actually achieved, mood tone, self-concept, perceived health, financial security, and social contact. Responses to the SCLSES items may be summed to form a subjective client profile of well-being in each of the 8 categories. The items are composed in a five point range. Scores for each subscale range from 5 to 20. For the complete scale, scores may range from 40 to 200.

Validity and reliability:

Total LSES scores correlated with the Beck Depression Inventory at r=0.48, and the Geriatric Depression Scale at r=0.51. The mood subscale of the LSES correlated with the Beck Depression Inventory at r=0.73 and with the Geriatric Depression Scale at r=0.78.[20]

List of references:

Salamon, M.J.
Clinical use of the Life Satisfaction in the Elderly Scale.
Clinical Gerontologist; 8, 1988, no. 1, p. 45-54
Nivel (C 1989)

> The life satisfaction in the elderly scale (LSES), a multiple-choice, Likert-type instrument for the assessment of quality of life in older adults is evaluated in this article. The development of the LSES stems from interest in evaluating subjective well-being states as a means of assessing older adults' reactions to their ecological, emotional, and social environments. Reliability and validity data suggest that the LSES is both clinically and theoretically appropriate. Case examples illustrate the use of the LSES with an 85-yr-old woman with Parkinson's disease and an 89-yr-old woman with adjustment disorder and depression.

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[20] Linn, M.W.
Assessing community adjustment in the elderly.
In: Raskin, A., Jarvik, L.F.
Psychiatric symptoms and cognitive loss in the elderly:
evaluation and assessment techniques.
New York: Hemisphere Publishing Co. 1979

Salamon, M.J.
A clinical application for life satisfaction.
Clinical Gerontologist; 3, 1985, no. 4, p. 60-61
Nivel (C 1990)

> This article describes the use of the Salamon-Conte Life Satisfaction in the Elderly Scale and data on its correlations with measures of mood (the Philadelphia Geriatric Center Morale Scale) and depression (the Beck Depression Inventory and the Geriatric Depression Scale). Results suggest that life satisfaction may be a clinically useful construct in the assessment of general well-being and depression.

Conte, V.A., Salamon, M.J.
An objective approach to the measurement and use of life satisfaction with older persons.
Measurement and Evaluation in Guidance; 15, 1982, no. 3, p. 194-200
KNAW

> This article reviews the historical development of measures of life satisfaction, presents a scale devised by the authors, and suggests uses of such measures by counseling practitioners. There is little question as to the importance of measures of life satisfaction and morale in the area of gerontology. The scales available can be used as research tools, evaluation measures, heuristic devices to stimulate discussions, and guidelines to structure the counseling interaction. Although some scales have been in use for a number of years, the psychometric properties of these measures are still in question. This remains the case because life satisfaction and morale are specific to every individual.

NEUGARTEN LIFE SATISFACTION SCALE[21]

Source:

Neugarten, B.L. et al.
The measurement of life satisfaction.
Journal of Gerontology; 16, 1961, p. 134-143

Purpose:

The Life Satisfaction Index covers general feelings of well-being among older people to identify 'succesful' aging. (McDowell)

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[21] also called Life Satisfaction Index-A

Description:

The Life Satisfaction Index comprises 20 statements. For eight of these, agreement with the statement implies a negative response, whereas for 12 agreement with the statement implies a positive response. Example of a negative statement: I feel old and somewhat tired. Example of a positive statement: The things I do today are as interesting to me as they ever were. The index is self-administrative, and takes about 10 to 15 minutes.

Validity and reliability:

In a study of Lohmann[22] the index was compared with other indicators of life satisfaction. In a research among 259 elderly people the following correlations were found: r=0.94 with Life Satisfaction Index-Z, r=0.65 with Kutner's Morale Scale, r=0.76 with the Philadelphia Geriatric Center Morale Scale.

List of references:

Donaldson, C., Atkinson, A., Bond, J., Wright, K.
QALYS and long-term care for elderly people in the UK: scales for assessment of quality of life.
Age-Ageing; 17, 1988, no. 6, p. 379-387
Nivel
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Bowling, A., Formby, J., Grant, K., Ebrahim, S.,
A randomized controlled trial of nursing home and long-stay geriatric ward care for elderly people.
Age Ageing; 20, 1991, no. 5, p. 316-324
Nivel
-abstract on page 6-

Bowsher, J.E., Gerlach, M.J.
Personal control and other determinants of psychological well-being in nursing home elders.
Scholarly Inquiry for Nursing Practice; 4, 1990, no. 2, p. 91-102
KNAW

> Conducted was a correlational study to identify predictors of psychological well-being (PWB) in a nonrandom sample of 302 cognitively intact nursing home elders (aged 65-101 yrs) with poor to excellent self-rated

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[2 Lohmann, N.
Correlations of Life Satisfaction, morale and adjustment measures.
Journal of Gerontology; 32, 1977, p. 73-75

physical health. Predictors considered were 2 dimensions of personal control, physical health, functional health, socio-economic status (SES), length of stay in the nursing home, and interaction variables. Instruments used included the Life Satisfaction Index A, Desired Control Measure, The Index of Activities of Daily Living, and the Two Factor Index of Social Position. Dimensions of personal control and self-rated physical health explained 33% of the variance of PWB. Findings suggest predictor variables to guide the promotion and maintenance of PWB.

Bowling, A.P., Edelmann, R.J., Leaver, J., Hoekel, T.
Loneliness, mobility, well-being and social support in a sample of over 85 year olds.
Personality and Individual Differences; 10, 1989, no. 11, p. 1189-1192
KNAW

Factors related to loneliness in 596 female and 66 male elderly persons (aged 85+ yrs) were examined. Measures included the General Health Questionnaire, the Life Satisfaction Index, and a single item rating of loneliness. A comparison of age and gender groupings revealed decreased mobility with age and greater physical impairment in women. Greater loneliness was related to increased psychiatric morbidity, increased physical impairment, low life satisfaction, small social networks, and the lack of a confidante. The variables most likely to distinguish between lonely and nonlonely subjects were increased psychiatric morbidity and decreased life satisfaction.

Liang, J.
A structural integration of the Affect Balance Scale and the Life Satisfaction Index A.
Journal of Gerontology; 40, 1985, no. 5, p. 552-561
Nivel
-abstract on page 61-

PHILADELPHIA GERIATRIC CENTER MORALE SCALE

Source:

Lawton, M.P.
The Philadelphia Geriatric Centre Morale Scale: a revision
Journal of Gerontology; 30, 1975, p. 85-89

Purpose:

The Philadelphia Scale was developed in the United States for use with frail elderly people in specialist housing.

Description:

Originally developed by Lawton, it contained 22 items, yielding six factors: surgency, attitude toward ageing, satisfaction with status quo, agitation, optimism, and loneliness and dissatisfaction. Most of the items have a dichotomous response format. For example: the statement 'Things keep getting worse as I get older' should be met with a clear 'yes' or 'no'. Most questions deal with the psychological perception of getting older. The questionnaire can be self-administered or by means of an interviewer, and is applicable to normal elderly adults as well as to the impaired and institutionalized.

Validity and reliability:

The PGMS correlates well with other measures of satisfaction and morale (0.6 - 0.9), especially the Life Satisfaction Index strongly correlates with the PGMS[23]. Internal reliability was reported as 0.8. Test-retest reliabilities are reported by Lawton for two samples with overall coefficients of 0.75 and 0.8.

List of references:

Rothman, M.L., Hedrick, S., Inui, T.
The Sickness Impact Profile as a measure of the health status of noncognitively impaired nursing home residents.
Medical-Care; 27, 1989, no. 3 Suppl, p. S157-S167
Nivel
-abstract on page 52-

Lawton, M.P., Moss, M.S., Fulcomer, M., Kleban, M.H.
A research and service oriented multilevel assessment instrument.
Journal of Gerontology; 37, 1982, no. 1, p. 91-99
RUU

> The article describes the Philadelphia Geriatric Center Multilevel Assessment Instrument (MAI). The MAI systematically assesses behavioral competence in the domains of health, activities of daily living, cognition,

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[23] Lawton, M.P.
The dimensions of morale.
In: Kent, D.P. et al.
Research planning and action for the elderly: the power and potential of social science.
New York: Behavioral Publications. 1972.

time use, and social interaction, and in the sectors of psychological well-being and perceived environmental quality. Determination of the psychometric qualities of measures of different length in each of these domains and sectors are made. The performance of 590 older people (mean age 77 yrs) in groups composed of independent community residents, in-home services clients, and people awaiting admission to an institution was determined. The MAI is seen as useful for both research and for assessment in service-giving situations.

Mancini, J.A., Shade, D.D., Quinn, W.H.
Measuring morale: Note on use of factor scores.
Psychological Reports; 56, 1985, no. 1, p. 139-144
RUU

Investigated is the multidimensionality of a modified version of the Philadelphia Geriatric Center Morale Scale (MS) and whether investigators should use a total summed score of one or more of the factor-derived scores. Verification of the nature of factors derived from earlier research was also attempted. 171 adults (aged 65+ yrs) completed an interview that contained the MS, and the results were factor analyzed. Findings reveal that most of the items loaded on 1 of the 3 factors: Agitation, Attitude Toward Own Aging, and Lonely Dissatisfaction. The Agitation factor was especially robust and was the most reliable of the 3 factors. On the average, the Agitation factor and the Summary Morale score correlated about equally with the various perceived health measures. Findings partially support the prediction that the relationship between health and morale varies according to whether a summated-global or a factor-derived score is used. Findings suggest the utility of considering morale as multidimensional and as a phenomenon whose components may differentially relate to various social, psychological, and demographic variables.

Closs, C., Kempe, P.
A differential view and validation of the life-satisfaction construct: an analysis of proven procedures and recommendations for a methodologically based approach in measuring the dimensions of this construct.
Zeitschrift für Gerontologie; 19, 1986, no. 1, p. 47-55
RUU

A combined factor analysis of 2 life satisfaction scales (Wiendieck: LSI, Lawton: PGC) and a somatic symptoms checklist (Lauter: 'Beschwerdeliste') resulted in 7 factors. Five of them replicate relatively reliable and valid dimensions, which have been described separately in several publications. The dimensions can be termed: (1) "Social Integration/Loneliness", (2) "Satisfaction with Life in Old Age", (3) "Subjective Somatic Symptoms", (4) "Tranquility/Insecurity, Concern", (5) "Retrospective Congruence". The consolidating element of this study is to compose proved dimensions into a broader multidimensional construct of life satisfaction. Aiming at standardisation in this field, we propose a relatively short and simply analysable questionnaire, measuring these dimensions. Besides this we give hints for experimental design and control of confounding effects.

SOUTHSAMPTON SELF ESTEEM SCALE

Source:

Coleman, P.
Assessing self esteem and its sources in elderly people.
Ageing Society; 4, 1984, p. 117-135

Purpose:

The Southsampton Self Esteem Scale was derived from a Dutch scale, initially developed to monitor the effects of relocation of elderly people.

Description:

Statements for inclusion were derived from self-esteem statements appearing in other morale, depression and well-being scales. The scale consists of eight bipolar statements, e.g.: I feel useless/useful, and there is also an option which allows one not to have an opinion at all. Measured are sense of purpose, self-esteem, enjoyment, confidence, capability and alertness. Each item is scored on a three-point scale, and a total score may be derived from that by summing the individual items. The instrument is interviewer-administered using cards. It takes about 10 minutes to complete.

Validity and reliability:

The scale correlates with other measures and attitudes to old age and loneliness. Reliability was shown both as internal reliability (0.71) and by correlation coefficients for repeat administrations after 1 year (0.6 - 0.7). There is insufficient experience with this instrument at present and especially relating to responsiveness to change. (Fletcher, A.E. et al., Age and ageing 21, 1992, p. 142-150)

TENNESSEE SELF-CONCEPT SCALE

Source:

George, L.K., Bearon, L.B.
Quality of Life in older persons.
New York: Human Sciences Press 1980.

Purpose:

The instrument was developed specifically for clinical research and rehabilitation.

Description:

The Tennessee Self-Concept Scale (TSCS) consists of 100 items. Ninety self-decriptive statements were constructed to fill fifteen cells in two dimensions. On the horizontal axis: self-identity, self-acceptance, behaviour. On the vertical axis: Physical self, Moral-ethical self, Personal self, Family self and Social self. Six items represent each cell, yielding 90 statements which are balanced for positivity and negativity. The response categories lie along a five point continuum, ranging from 'completely false' to 'completely true'. The total score for these 90 items is a Positive Self-Esteem Score. The ten remaining items construct the Self-Criticism Scale. These items are administered to give the researcher an idea of the number of defensive answers that are being given, and of possible attempts to answer in socially desirable ways.

Validity and reliability:

With respect to the reliability, Fitts[24] reports test-retest coefficients of 0.92 for the positive self-esteem score and 0.75 for the self-criticism scale over a two week interval. In terms of convergent validity Fitts reports a correlation of 0.70 with the Taylor Manifest Anxiety Scale. There is little evidence of the scale's sensitivity to change.

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[24] Fitts, W.
Tennessee Self-Concept Scale Manual.
Nashville: Counselor Recordings and Tests 1965.

List of references:

Gaber, L.B.
Structural dimensions in aged self-concept: A Tennessee Self Concept study.
British Journal of Psychology; 75, 1984, no. 2, p. 207-212
RUU

> The Tennessee Self-Concept Scale was administered to 82 elderly community residents (mean age 79.6 yrs). Through the use of multivariate techniques, 3 robust factorial dimensions emerged from a principal components analysis: Self-Acceptance, Doubt Resolution/Defensiveness, and Conflict Integration. The importance of defensiveness in aged self-concept is highlighted.

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4. Measurement of psychological well-being

ABBREVIATED MENTAL TEST

Source:

Hodkinson, H.M.
Evaluation of a mental test score for the assessment of mental impairment in the elderly.
Age and ageing; 1, 1972, p. 233-238

Purpose:

The test was developed for the measurement of cognitive function of mostly older persons with dementia or mental illness.

Description:

The abbreviated mental test contains 10 questions concerning age, time, year, name of place, recognition of two persons, birthday, date of worldwar I, queen's name, counting backwards from 20 to 1 and a 5-minute recall to mention the full street address.

Validity and reliability:

The Abbreviated Mental Test (AMT) has been tested against the Crichton Royal Behaviour Rating Scale and a clinical diagnosis of dementia by Vardon and Blessed[25], using 99 residents of homes for the elderly. The authors report that the AMT does reveal significant cognitive decline which is characteristic of dementias. Correlations with longer mental-status scales were found by Thompson and Blessed[26]: r between 0.91 and 0.96, which was comparable with previous findings. Little is known about the reliability of this test. (Bowling)

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[25] Vardon, V.M., Blessed, G.
Confusion ratings and abbreviated mental test performance: a comparison.
Age and ageing; 15, 1986, p. 139-144

[26] Thompson, P., Blessed, G.
Correlation between the 37-item Mental Test Score and abbreviated 10-item Mental Test Score by psychogeriatric day patients.British Journal of Psychiatry; 151, 1987, p. 206-209

List of references:

Bowling, A., Formby, J., Grant, K., Ebrahim, S.
A randomized controlled trial of nursing home and long-stay geriatric ward care for elderly people.
Age Ageing; 20, 1991, no. 5, p. 316-324
Nivel
-abstract on page 6-

BECK DEPRESSION INVENTORY

Source:

Beck, A.T., Mendelson, M., Mock, J.
Inventory for measuring depression.
Archives of General Psychiatry; 4, 1961, p. 561-571

Purpose:

The Beck Depression Inventory is a 21-item, multiple choice inventory of depressive symptoms, and is specifically designed for research in depressive patients as opposed to scales that are more generally interested in both anxiety and depression. It was originally developed to be administered by an interviewer but is now a self rating scale.

Description:

The Beck Depression Inventory contains 94 multiple choice questions that are grouped into 21 categories. A large proportion of the questions relates to somatic disturbance. The symptoms and attitudes which the scale attempts to measure are sadness, pessimism/discouragement, sense of failure, dissatisfaction, guilt, expectations of punishment, self-dislike, self-accusation, suicidal ideation, crying, irritability, social withdrawal, indecisiveness, body-image distortion, work retardation, insomnia, fatiguability, anorexia, weight loss, somatic preoccupation and loss of libido. The Beck Depression Inventory yields a single score based on simple cumulation of the highest values that are circled for each item.

Validity and reliability:

The Beck Depression Inventory has demonstrated high reliability with a so-called split-half reliability of R = 0.93 (Beck, 1961), and coefficient alpha estimations reported to range from 0.79 to 0.91[27]. Since it is intended to measure transient or acute changes in severity of depressive symptoms, measures of temporal stability (test-retest) are not indicated. However, high test-retest reliability has been reported for this measure for up to 3 months.[28] Convergent validity has been established through correlations with other self-report depression scales: r = 0.64 with the Zung Self-Rating Depression Scale, r = 0.66 with the Depression Adjective Checklist and r = 0.70 with the Symptom Checklist-90. (Spilker)

List of references:

Bella, R., Biondi, R., Raffaele, R., Pennisi, G.
Effect of acetyl-L-carnitine on geriatric patients suffering from dysthymic disorders.
International Journal of Clinical Pharmacology Research; 10, 1990, no. 6, p. 355-360
Nivel
-abstract on page 47-

Gallagher-Thompson, D., Brooks, J.O., Bliwise, D., Leader, J., Yesavage, J.A.
The relations among caregiver stress, "sundowning" symptoms, and cognitive decline in Alzheimer's disease.
Journal of the American Geriatric Society; 40, 1992, no. 8, p. 807-810
RUU

> The aim of this research was to investigate the relations among the initial perceived stress of Alzheimer patients' caregivers, the rate of change of perceived stress, patients' sundowning behaviors, and patients' rate of cognitive decline. In a longitudinal cohort study Alzheimer patients and their caregivers were assessed at 6-month intervals, in a hospital out-patient clinic. Patients and caregivers lived at home. Subjects were 35 patients (50-79 years) with Alzheimer's disease and their primary caregivers (24 males and 11 females); all caregivers were spouses. At time of entry into the study, caregivers indicated which of seven behaviors indicative of sundowning were exhibited by the patient. Patients were evaluated successively using the Mini-Mental State Examination, whereas caregivers completed the Perceived Stress Scale, provided an index of social support utilization, and completed the Beck Depression Inventory. The main outcome measures were: Caregivers' initial perceived

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[27] Gallagher, D. et al.
Reliability of the Beck Depression Inventory with older adults.
Journal of Consulting and Clinical Psychology; 50, 1961, p. 152-153

[28] Strober et al.
Utility of the Beck Depression Inventory with psychiatrically hospitalized adolescents
Journal of Consulting and Clinical Psychology; 49, 1981, p. 482-483

stress and the rate of change of perceived stress, patients' sundowning behavior, and the rate of cognitive decline. The pattern of correlations indicated that both rate of cognitive decline and initial sundowning behavior were significantly correlated with initial perceived caregiver stress. The average rate of increase of caregivers' perceived stress was positively correlated with the initial incidence of sundowning behaviors, even when controlling for the effects of caregiver depression and social support utilization. Conclusion: Sundowning behavior of Alzheimer patients is associated with an increased rate of change of caregivers' perceived stress. This association may be specific to sundowning behavior because there was no relation between the rate of change of perceived stress and morning agitation. The findings suggest that future caregiver intervention programs could profitably focus on sundowning behavior rather than general agitation.

Rubin, E.H., Kinscherf, D.A., Wehrman, S.A.
Response to treatment of depression in the old and very old.
Journal of Geriatric Psychiatry and Neurology; 4, 1991, no. 2, p. 65-70
KNAW

Treatment responses were monitored in 101 depressed patients, ranging in age from 64 to 92 years, hospitalized on a geropsychiatry unit. Forty-six percent of the patients received ECT. Medications were used in the majority of patients. Responses were assessed with both depression inventories (Beck Depression Inventory and Geriatric Depression Scale) and physician-rated global improvement scores. Advanced age was not associated with poor outcome. ECT was the most important variable associated with a good response, regardless of age.

Gallagher, D.
The Beck Depression Inventory and older adults.
Clinical Gerontologist; 5, 1986, no. 1/2, p. 149-163
Nivel (C 1991)

Gallagher reviews the use of the Beck Depression Inventory with elders, discussing its usage, validity, reliability, factor structure, and utility for screening, research, and symptom monitoring. Specific problems and limitations are emphasized, especially with elders who have limited educational background or cognitive capacity, a social undesirability response set, or numerous somatic complaints.

BEOORDELINGSSCHAAL OUDERE PATIENTEN[29]

Source:

Gorissen, J.P.
A differential description of the SDAT-patient with the BOP and the GOS-G.
Tijdschrift voor Gerontologie en Geriatrie; 17, 1986, p. 17-24

Purpose:

The BOP is an observation scale of geriatric behaviour to be used by nurses.

Description:

The BOP is a translation and modification of the Stockton Geriatric Rating Scale. This scale consists of 35 items, which - by means of factor analysis - may be divided in the following subscales: helplessness, agressiveness, depressed behaviour, psychological invalidity and inactivity. Many questions in the most important subscale 'helplessness' are representative of questions concerning the dementia syndrome. Some examples are incontinence, language disorders, disorientation, loss of memory, and disorders in sleeping behaviour. The instrument seems to be sensitive for changes in behaviour. The scale has been used quite often in Dutch nursing homes.

Validity and reliability:

The reader is consigned to the researches below for a description of the validity and the reliability of the BOP.

List of references:

Dingemans, P.M.A.J., Bleeker, J.A.C., Bakker-Winubst, M., Frohn-de Winter, M.L.
A comparison of two behaviour rating scales in psychogeriatrics: NOSIE and BOP.
Tijdschrift voor Gerontologie en Geriatrie; 14, 1983, p. 223-230
Nivel (C 1992)

> The relation between the NOSIE and the BOP was studied in a psychogeriatric sample. The results supported the hypothesis of a transcultural difference in the use of the NOSIE. Dutch nurses subsume personal neatness under social competence, Anglo-Saxons do not. The factor solution of the NOSIE, with the exception of the depression factor,

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[29] Dutch version of the Stockton Geriatric Rating Scale.

was comparable with earlier Dutch research, and was interpreted as support for the notion that the NOSIE is a reliable observation scale. The correlation between factor scales of the NOSIE and the BOP were significant, but of moderate range. This was taken to mean that there is limited convergent validity between the NOSIE and the BOP. A high correlation was found between the infirmity scale and other subscales of the BOP. The BOP as well as the NOSIE were able to purposefully distinguish diagnostic groups when an external criterium or mixed criteria were used. It was concluded that both the BOP and the NOSIE may supplement each other in psycho-geriatric research practice.

Jacobs, M., Trommel, J., Gips, C.H.
A rating scale for geriatric patients: Need of care, age groups and one-year survival of psychogeriatric patients.
Nederlands Tijdschrift voor Gerontologie; 9, 1978, no. 1, p. 27-34
Nivel (C 1993)

The 'Beoordelingsschaal voor Oudere Patienten' (BOP), a Dutch rating scale derived from the Geriatric Rating Scale, was evaluated in a psychogeriatric institution in which patients live in units according to their need of care. The BOP has subscales indicating the degree of (a) need of care, (b) aggressiveness, (c) physical and psychical invalidity, (d) depressive behavior, and (e) inactivity. A higher test score indicates more serious disturbance. Both total test score and the following test items were correlated to the location of patients in units according to the degree of care needed: need of care, and physical and psychical invalidity and inactivity. Aggressivity and depressive behavior did not correlate with type of unit. No correlation was found between age class (65-74, 75-84, and 85-94 yrs) and test results. A low total score and low scores on the subscales need of care, physical and psychical invalidity, and inactivity were associated with survival of at least 1 yr. Dividing the patients in categories according to their principal psychiatric diagnosis gave the same results (total score).

Gorrissen, J.P.
A differential description of the SDAT-patient with the BOP and the GOS-G.
Tijdschrift voor Gerontologie en Geriatrie; 17, 1986, p. 17-24
Nivel (C 1994)

In this article the BOP (Dutch version of the Stockton Geriatric Rating Scale) and the GOS-G (an adapted version of the BOP) were compared in their capacity to differentiate between a group of SDAT-patients (Senile Dementia Alzheimer Type) and a group of elderly patients with other psycho-organic symptoms. Both scales differentiated between the two groups. A second goal in this study was to test the assumption that the GOS-G would do better than the BOP in describing the SDAT-patient in his differences with the intention to overcome some shortcomings of the BOP. The results showed that this assumption was correct. The picture of the differences between both groups given by the BOP was incomplete. Especially the underestimation of the dysfunctioning in activities of daily living and the neglect of disturbing behavior were seen as a disadvantage of the BOP.

BRIEF COGNITIVE RATING SCALE

Source:

Reisberg, B. et al.
The brief cognitive rating scale: findings in primary degenerative dementia.
Arthritis & Rheumatism; 23, 1980, no. 2, p. 47-50

Purpose:

The Brief Cognitive Rating Scale was developed as a result of experience with earlier rating instruments, as well as broad clinical experience with cognitive problems in geriatric patients. The instrument is intended to be analogues to the Hamilton Scale and assesses the severity of a syndrome, not a particular diagnostic entity.

Description:

The measurement scale uses seven rating points, which correspond to seven definable and distinguishable stages of cognitive decline, visualized on each axis. These axes are: concentration, recent memory, remembrances of things past, orientation, functioning and self-care. Items are scored from information obtained during a structured clinical interview, which was conducted in the presence of a spouse or caretaker wherever possible.

Validity and reliability:

The Pearson correlations for each of the axes with the total score of the Guild[30] Memory Test ranged from 0.51 to 0.69 ($p < 0.05$). The intercorrelations among the axes ranged from 0.88 to 0.93 ($p < 0.001$).

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[0] Gilbert, J.G. et al.
A preliminary report on a new memory scale.
Percept. Mot. Skills; 27, 1968, p. 277-278

List of references:

Reisberg, B.
The brief cognitive rating scale: findings in primary degenerative dementia.
Arthritis & Rheumatism; 23, 1980, no. 2, p. 47-50
Nivel (C 1995)

> The authors have developed an instrument for the rapid, structured clinical assessment of cognitive decline, regardless of etiology. This instrument is intended to be analogous to the Hamilton Scale for the depressive syndrome.

GERIATRIC DEPRESSION SCALE

Source:

Yesavage, J.A. et al.
Development and validation of a geriatric depression screening scale: a preliminary report.
Journal of Psychiatric Research; 17, 1983, p. 37-49

Purpose:

The Geriatric Depression Scale is a self rating depression test, specifically devised for and standardized with elder subjects.

Description:

This scale, to be administered either orally or in writing, contains 30 questions to be answered with a 'yes' or 'no'. The number of depressive responses is tallied, and the score of 0-30 indicates the level of depression (0-10 = normal, 11-20 = mild depression, 21-30 = moderate or major depression)

Validity and reliability:

Compared to the Zung Self-rating Depression Scale and the Hamilton (observer-rated) scale, the Geriatric Depression Scale has superior validity, in terms of its ability to distinguish between depressed and non-depressed elders. The scale has internal reliability coefficients of 0.56 (median correlation with total score), 0.36 (mean interim correlation), 0.94 (alpha coefficient), and 0.94 (split-half).[31]

List of references:

Scogin, F.
The concurrent validity of the Geriatric Depression Scale with depressed older adults.
Clinical Gerontologist; 7, 1987, no. 1, p. 23-31
Nivel (C 1996)

> The psychometric properties of the Geriatric Depression Scale were examined. Participants were mildly and moderately depressed elders involved in a self-help treatment program. The results suggest that the scale possesses concurrent validity and sensitivity to change equivalent to the Beck Depression Inventory. The choice of a self-report assessment instrument may be directed by characteristics of the target population. Additional research demonstrating the sensitivity of the Geriatric Depression Scale to changes in depression is needed.

Lesher, E.L.
Validation of the Geriatric Depression Scale among nursing home residents
Clinical Gerontologist; 4, 1986, no. 4, p. 21-28
Nivel (C 1997)

> The Geriatric Depression Scale has been found to be a helpful screening instrument for depression among psychiatric and community elderly, but has never been validated among elderly nursing home residents. The reliability and validity of the Geriatric Depression Scale was examined among 51 nursing home residents. Reliability was assessed using several methods and was found to be acceptable. The scale significantly differentiated between residents with no depression, depressive features, and major depression. Using recommended cutoff scores, the sensitivity rate for the Geriatric Depression Scale was 100% for residents with major depression.

Perilou Goddard, B.S., Carstensen, L.L.
Behavioral treatment of chronic depression in an elderly nursing home resident.
Clinical Gerontologist; 4, 1986, no. 4, p. 13-20
Nivel (C 1998)

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[31] Brink, T.L. et al.
Screening tests for geriatric depression.
Clinical Gerontologist; 1, 1982, no. 1, p. 37-43

Although depression is considered a common behavior disorder among nursing home residents, treatment in such facilities is rare. This case study represents a short-term behavioural intervention for depression in an elderly nursing home resident that involved minimal staff time and low monetary costs. Results of self-ratings of mood and a functional analysis of her situation indicated that 86-year-old Mrs B. was most depressed during periods of the day when she was left inactive and unattended, especially mornings and early evenings. The intervention involved modifying her environment so that Mrs. B. had access to self-initiated pleasant activities during these periods of relative inactivity. The intervention resulted in an increase in self-rated positive mood. The Geriatric Depression Scale was administered during the third week of the initial assessment period.

GERIATRIC HOPELESSNESS SCALE

Source:

Fry, P.S.
Assessment of pessimism and despair in the elderly: A geriatric scale of hopelessness.
Clinical Gerontologist; 5, 1986, no. 1/2, p. 193-201

Purpose:

The major objective of the scale development was the identification of overt and covert themes of hopelessness in the elderly and the assessment of the degree of hopelessness.

Description:

This scale has 30 items which refer to affective, motivational, and cognitive components of hopelessness in the subject. There are 15 items which, if marked 'true', denote high hopelessness in the subject, and 15 other items which, if marked 'false', denote low hopelessness in the subject. This scale has a self-rating format and can be administered in oral or written form. The hopelessness-levels are: 0-10 which signifies few signs of pessimism, 11-19 for subjects who may be indicative of a need for help and moral support, and 20-30, for subjects who feel clinically despaired and may need professional help.

Validity and reliability:

The scale correlated positively with scores on the Geriatric Depression Scale (r = 0.49) and negative with the Tennessee Self-Concept Scale.

List of references:

Fry, P.S.
Assessment of pessimism and despair in the elderly: A geriatric scale of hopelessness.
Clinical Gerontologist; 5, 1986, no. 1/2, p. 193-201
Nivel (C 1999)

> According to the author there is a strong need for a brief and easy to administer scale for the assessment of pessimism and cognitions of hopelessness in the elderly because of its assumed relationship with depression and suicide attempts. The scale which is presented by the author focusses on this specific component of depression: hopelessness. The author explains the rational behind the scale, scoring norms, factor analysis, reliability and validity.

HAMILTON DEPRESSION SCALE

Source:

Hamilton, M.
Development of a rating scale for primary depressive illness.
British Journal of Social and Clinical Psychology; 6, 1967, p. 278-296

Purpose:

This is a widely used observer scale which includes assessment of cognitive and behavioural components of depression and is particularly thorough in the assessment of the somatic aspects. (Bowling)

Description:

The Hamilton Depression Scale consists of 21 items: depressed mood, feelings of guilt, suicidal ideation, working status and activities, insight, retardation, agitation, insomnia, psychic anxiety, gastro-intestinal symptoms, general somatic symptoms, genital symptoms, hypochondriases and loss of weight. The items are individually scored by a rater during an interview. The total scores range from 0-100 (in which is represented either the sum of two raters' scores or a redoubling of one rater's score). Some studies report total scores with a maximum of 50. (Bowling)

Validity and reliability:

High concurrent validity is reported with other scales, particularly the Beck Depression Scale (r=0.70). Carroll et al.[32] reported that the Hamilton scale was better able than the Beck depression Inventory to distinguish between groups of patients known to have varying degrees of depression.

List of references:

Bowling, A., Formby, J., Grant, K., Ebrahim, S.
A randomized controlled trial of nursing home and long-stay geriatric ward care for elderly people.
Age Ageing; 20, 1991, no. 5, p. 316-324
Nivel
-abstract on page 6-

Bella, R., Biondi, R., Raffaele, R., Pennisi, G.
Effect of acetyl-L-carnitine on geriatric patients suffering from dysthymic dis orders.
International Journal of Clinical Pharmacology Research; 10, 1990, no. 6, p. 355-360
Nivel
-abstract on page 47-

Marcos, T., Salamero, M.
Factor study of the Hamilton Rating Scale for Depression and the Beck Melancholia Scale.
Acta Psychiatrica Scandinavica; 82, 1990, no. 2, p. 178-181
RUU

> In this study, a sample (n = 234) of elderly people between the ages of 60 and 95 was evaluated. Items from the Hamilton Rating Scale for Depression and the Beck-Rafaelsen Melancholia Scale were factorialized. Three clinically significant factors were obtained, accounting for 41% of the variance. The first was interpreted as a dimension of inhibition and melancholic depression, the second was insomnia, and the third somatic and psychic anxiety. It is concluded that the set of items on both scales increases the capacity for evaluating melancholic aspects of depression. In the interpretation of factor analysis, the possible artifact represented by the repetition of similar items must be kept in mind. Despite the loss of simplicity which the oblique-rotation-method used in this research implies,

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[32] Carroll, B.J., Fielding, J.M., Blash, T.G.
Depression Rating Scales: a critical review.
Archives of General Psychiatry; 28, 1973, p. 361-366

it is considered preferable by the investigators to orthogonal rotation since it allows for a greater congruity with clinical situations.

HOSPITAL ANXIETY AND DEPRESSION SCALE

Source:

Zigmond, A.S., Snaith, R.P.
The Hospital Anxiety and Depression Scale
Acta Psychiatrica Scandinavia; 67, 1983, p. 361-370

Purpose:

The scale intends to measure depression which, according to the authors, is the best indicator of hypomelancholia.

Description:

The Hospital Anxiety and Depression Scale assesses anxiety and depression. The scale consists of 14 items, which are divided into two subscales for anxiety and depression. Each item is administered by the patient according to his experience over the past week, on a 4-point response scale. Possible responses are 'most of the time', 'a lot of the time', 'from time to time' and 'occasionally'. On each item 0 to 3 points can be scored. A high score refers to the occurence of depression.

Validity and reliability:

The scales were tested for validity in more than 100 psychiatric outpatients and hospital staff by Zigmund and Snaith in the above mentioned research, with good results. The authors present the HAD as a reliable and valid instrument on the basis of their own tests. According to others (Bowling) far more work on its validity and reliability is required.

List of references:

Bergman, B., Sullivan, M., Sorenson, S.
Quality of life during chemotherapy for small cell lung cancer. I. An evaluation with generic health measures.
Acta Oncology; 30, 1991, no. 8, p. 947-957
Nivel
-abstract on page 10-

Greer, S., Moorey, S., Baruch, J.D., Watson, M., Robertson, B.M., Mason, A., Rowden, L., Law, M.G., Bliss, J.M.
Adjuvant psychological therapy for patients with cancer: a prospective randomised trial.
British Medical Journal; 304, 1992, no. 6828, p. 675-680
Nivel
-abstract on page 47-

Wands, K., Merskey, H., Hachinski, V.C., Fisman, M., Fox, H., Boniferro, M.
A questionnaire investigation of anxiety and depression in early dementia.
Journal of the American Geriatric Society; 38, 1990, no. 5, p. 535-538
RUU

> The researchers report findings on a study of anxiety and depression by questionnaire in 50 patients with mild dementia and 134 control subjects using the Hospital Anxiety and Depression Scale. Thirty-eight percent of patients and 9% of controls had a possible or probable diagnosis of an anxiety disorder. Possible or probable depression was found in 28% of the patients and 3% of the controls. These rates for the patients were above those in normal populations. All patients and control subjects were tested with the Extended Scale for Dementia (ESD). Neither group showed a significant relationship between depression and ESD scores. In the control subjects there was a negative correlation (p less than 0.006) between anxiety and cognitive scores, one that was not found among the group of patients.

MENTAL STATUS QUESTIONNAIRE

Source:

Kahn, R.L. et al.
Brief objective measures for determination of mental status in the aged.
American Journal of Psychiatry; 117, 1960, p. 326-328

Purpose:

Assessment of the mental status of particularly demented aged patients.

Description:

The Mental Status Questionnaire (MSQ) includes questions about current date and year, age, month and year of birth. Also, the names of current presidents and those of the immediate past. Each question receives equal weighting (one point) for a sum total of ten points.

Validity and reliability:

The MSQ has been validated against psychiatrists' clinical ratings of organic impairment, and has shown a linear progression with increasing numbers of patient errors associated with more severe chronic brain syndrome ratings. No indices of test-retest reliability of this measure have been reported.
(Pearson, J.L.: Clinical Gerontologist; 8, 1989, no. 4, p. 31-37)

List of references:

Pearson, J.L., Cherrier, M., Teri, L.
The Mini-Mental State Exam and the Mental Status Questionnaire: depression in Alzheimer's patients.
Clinical Gerontologist; 8, 1989, no. 4, p. 31-37
Nivel (C 2000)

> Performance on the Mini-Mental State Exam (MMSE) and the Mental Status Questionnaire (MSQ) was compared among 80 Alzheimer patients. The conclusion of the researchers was that the MMSE was a more sensitive test, capable of detecting more subtle impairment levels and sensitive to coexistent diagnostic issues.

MINI-MENTAL STATE EXAM

Source:

Folstein, M.F. et al.
Mini Mental State: A practical method for grading the cognitive state of patients for the clinician.
Journal of Psychiatric Research; 12, 1975, p. 189-198

Purpose:

Assessment of the mental status of patients, particularly demented aged.

Description:

The 11-item Mini-Mental State (MMSE) assesses orientation to time and place, attention, immediate and delayed memory, calculation, language, and constructual ability. Each question varies in score points, ranging from 1 to 5 points, for a sum total of 30 points on the measure.

Validity and reliability:

The MMSE has been shown to have adequate test-retest reliability (r=0.83 over 24 hours). The correlation between the MMSE and the Mental Status Questionnaire was r =0.74 (p < 0.001).
(Pearson, J.L.: Clinical Gerontologist; 8, 1989, no. 4, p. 31-37)

List of references:

Pearson, J.L., Cherrier, M., Teri, L.
The Mini-Mental State Exam and the Mental Status Questionnaire: depression in Alzheimer's patients.
Clinical Gerontologist; 8, 1989, no. 4, p. 31-37
Nivel
-abstract on page 93-

Braekhus, A., Laake, K., Engedal, K.
The Mini-Mental State Examination: Identifying the most efficient variables for detecting cognitive impairment in the elderly.
Journal of the American Geriatric Society; 40, 1992, p. 1139-1142
RUU

> The subjects in this study were 850 elderly of three different categories: geriatric in-patients, patients living under supervision, and elderly people living independently at home. The objective was to study how well the scoring on each item of the Mini-Mental State Exam related to the sum-score when the purpose was to identify persons with cognitive impairment, and to identify an equally effective subset of items for predicting cognitive impairment.

MOOD ADJECTIVE CHECKLIST

Source:

Sjöberg, L., Svensson, E., Persson, L.O.
The measurement of mood.
Scandinavian Journal of Psychology; 20, 1979, p. 1-18

Purpose:

The Mood Adjective Checklist is an evaluative instrument for the measurement of mental well-being. The complete version consist of 71 adjectives and describes moods and feelings.

Description:

In the Mood Adjective Checklist 71 words describe different emotional states. There are four possible answers for each word: ++ , + , - , --, and the patient should circle the one that best describes how he or she is feeling at the moment.

List of references:

Borgquist, L., Nilsson, L.T., Lindelow, G., Wiklund, I., Thorngren, K.G.
Perceived health in hip-fracture patients: a prospective follow-up of 100 patients.
Age Ageing; 21, 1992, no. 2, p. 109-116
Nivel (C 2001)

> Reported is the impact of the treatment and rehabilitation in hip-fracture patients by using self-assessment instruments of perceived health and relate them to objective outcome assessments, such as ADL (personal hygiene/dressing), walking ability and technical complications. Subjective and objective status for 100 hip-fracture patients admitted from their own home, and rehabilitated in primary health care, were registered over 1 year after fracture. Mean age was 74, and 80% of the patients were women. Two self-assessment questionnaires: the Nottingham Health Profile (NHP part 1) and the Mood Adjective Checklist (MACL) were answered by the patients 6 and 12 months after fracture and compared with functional status (ADL, and walking ability) 4 months after fracture. Problems related to the hip fracture such as pain and physical mobility had most effect on the self-assessment questionnaire (NHP) and were in accordance with the district physiotherapists' evaluation of function. Patients with complications (resulting in nail extraction and total hip replacement) after the primary hip osteosynthesis and patients with a poor function 4 months after fracture had scores in the self-assessment questionnaires indicating a more pronounced and distressing impact of the disease. Small changes in subjective mood (MACL) were found. In an acute, curable, disease such as hip fracture the objective outcome seems as informative as the subjective evaluations of patients' self-assessment.

NURSES' OBSERVATIONAL SCALE FOR INPATIENT EVALUATION

Source:

Della Cuna, G.R.
Effect of methylprednisolone sodium succinate on quality of life in preterminal cancer patients: a placebo-controlled, multicenter study.
European Journal of Clinical Oncology; 25, 1989, no. 12, p. 1817-1821

Purpose:

The instrument has been developed particularly for use with older, chronic-schizophrenic patients. But is also used for indication of improvement with treatment in cancer patients.

Description:

This scale comprises 21 questions. A nurse scores each question, based on the patient's behaviour over the previous 3-day period, on a five point scale ranging from 'never' to 'always'. Five factor scores (social competence, social interests, irritability, retardation, e.g. having difficulties in completing simple tasks, sluggishness, and depression), and a total score are derived. The total score is calculated as follows: total score = 50 + social competence + social interest - irritability - retardation - depression.

Validity and reliability:

After a z-transformation, a mean inter-reliability on item-level for all items of 0.57 was found by Dingemans et al. in a psychogeriatric sample. The internal consistency of six factor scales was respectively 0.89, 0.82, 0.78, 0.76, and 0.52. In their research they also compared the factorscales of the BOP and the NOSIE.

List of references:

Dingemans, P.M.A.J., Bleeker, J.A.C., Bakker-Winubst, M., Frohn-de Winter, M.L.
A comparison of two behaviour rating scales in psychogeriatrics: NOSIE and BOP.
Tijdschrift voor Gerontologie en Geriatrie; 14, 1983, p. 223-230
Nivel
-abstract on page 83-

Della Cuna, G.R., Pellegrini, A., Piazzi, M.
Effect of methylprednisolone sodium succinate on quality of life in preterminal cancer patients: a placebo-controlled, multicenter study.
European Journal of Cancer and Clinical Oncology; 25, 1989, no. 12, p. 1817-1821
Nivel
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PROFILE OF MOOD STATES

Source:

McNair, D.M. et al.
Profile of Mood States Manual.
San Diego: Educational and Industrial Testing Service 1971.

Purpose:

The assessment of emotional states.

Description:

The Profile of Moods consists of six subscales: tension (9 items), depression (15 items), anger (12 items), vigour (8 items), fatigue (7 items). Seven other individual items are included, but these are not in any of the scales. This scale is self-administered, and contains 65 adjectives relating to mood states over the past week, which are scored on a 5-point scale from 0 (not at all) to 4 (extremely). The test has specific advantages over other measures used in elderly people. A great deal of the measurement of subjective emotional states of older people, for example, has been done with measures that were conceptualized in such general terms as 'morale', 'life satisfaction' and other omnibus terms, rather than in terms of more specific moods.

Validity and reliability:

Overall the evidence from large standardization samples suggests that the Profile of Mood States is a valid and reliable descriptive tool for assessing mood states in both psychiatric and non-psychiatric populations. Despite its being developed to address several specific moods, the moderate to high intercorrelations among factor scores suggest that it may be better suited to measuring general mood disturbance. (Spilker)

List of references:

Kaye, J.M. et al.
Older people's performance on the Profile of Mood States.
Clinical Gerontologist; 7, 1988, no. 3/4, p. 35-56
Nivel (C 2002)

> This paper reports on the psychometric properties and feasibility of using the Profile of Mood States (POMS) with older adults to establish its cross-age usefulness in assessing emotional states. The POMS Scale was

administered to 505 older adults 65 and over recruited from 4 different locations.

Rieker, P.P., Clark, E.J., Fogelberg, P.R.
Perceptions of quality of life and quality of care for patients with cancer receiving biological therapy.
Oncol-Nurs-Forum; 19, 1992, no. 3, p. 433-440
KNAW

This retrospective, descriptive study was undertaken to identify patient and family perceptions about quality of life (QOL) and quality of care (QOC) after experimental biological therapy. A mail survey that included instruments designed to measure QOL (the Profile of Mood States [POMS] and the Linear Analogue Self-Assessment [Lasa]) and QOC was sent to patients (response rate, 60%) and to relatives of deceased patients (response rate, 70%). Bivariate and multivariate statistics were used to analyze the data. Patients reported a relatively good quality of life, as measured by POMS and LASA scores. The majority of living patients and of family members of deceased patients were positive about the QOC received; relatives were significantly less positive than patients. Four components were significant in respondents' assessment of QOC: adequate symptom control, availability of support services, communication with the medical team, and receiving information about response to treatment. The findings suggest that there is a need to supplement survival data and biomedical outcomes with information about patient and family perceptions about care and treatment.

ZUNG SELF-RATING DEPRESSION SCALE

Source:

Zung, W.W.K.
A self-rating depression scale.
Archives of General Psychiatry; 12, 1965, p. 63-70

Purpose:

The scale was developed with the express purpose of constructing a scale for assessing depression in patients which would fulfill the following: it should be inclusive with respect to symptoms of illness, it should be short and simple, it should quantitate rather than qualitate and it should be self-administered.

Description:

This scale was designed for self-administration, but in the elderly it has also been administered orally. The scale contains 20 statements which should be marked by 'a little of the time', 'some of the time', 'a good part of the time', and 'most of the time'. Some of these statements are: I feel down-hearted and blue, Morning is when I feel the best, I have crying spells or feel like it, I have trouble sleeping at night, I eat as much as I used to, I feel that others would be better off if I were dead. A raw score between 25 and 80 is possible. The index ranging from 0.25 to 0.100 is calculated by dividing the sum of the raw score by 80 x 100.

Validity and reliability:

The scale has been well validated in a lot of studies. For example Brink et al.[33] found a correlation of r=0.79 with the Hamilton Depression Scale.

List of references:

Schrijnemaekers, V.J.J., Haveman, M.J.
Depressive complaints in frail elderly.
Tijdschrift voor Gerontologie en Geriatrie; 23, 1992, p. 217-223
Nivel

> Data were collected about demographic variables and depressive complaints of 222 frail elderly. For this article the internal consistency of the Zung-depression scale was tested. Relations between depression and demographic variables are discussed. Cronbach's alpha of the depression scale is 0.82. A varimax rotated factor analysis resulted in six factors with a high percentage of explained variance on the first factor. This result indicates that the instrument is unidimensional. There was no systematic bias introduced by physical vulnerability. Of all frail elderly, 28% had depressive complaints. In general, women scored somewhat higher on the depression index than men. Only a slight relation between depression and age was found. Concerning household composition this study showed that frail ederly living alone and residents of old people's homes had significantly more depressive complaints than frail elderly living with others and independently living frail elderly respectively.

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[33] Brink, T.L. et al.
Screening tests for geriatric depression.
Clinical Gerontologist; 1, 1982, p. 37-43

Horiguchi, J., Inami, Y.
A survey of the living conditions and psychological states of elderly people admitted to nursing homes in Japan.
Acta Psychiatrica Scandinavica; 83, 1991, no. 5, p. 338-341
RUU

Investigated were the living conditions and the prevalence of depression in 920 elderly subjects (aged 65-101 yrs) living in 32 nursing homes, and in 1,153 subjects living in the community. All completed the Self-Rating Depression Scale. Most subjects participated in outdoor leisure activities, attended recreational events, communicated freely with others, and were visited by their children and relatives. 61% of the nursing home subjects were depressed as compared with 36% of the community-dwelling subjects.

Zung, W.W.K., Zung, E.M.
Use of the Zung self-rating depression scale in the elderly.
Clinical Gerontologist; 5, 1986, p. 137-147
Nivel (C 2003)

The authors review the use of this depression scale in the elderly. According to them, the preponderance of the data on the scale indicate that: it can be used with (most) aged subjects, its increasing scores in life reflect the opinion of many clinicians that vulnerability to depression does increase in old age, it can demonstrate statistically significant differences between depressed elders and normal elders, it demonstrates a precipitous drop in scores of elders who have been treated for depression. However, the accuracy of the scale in cases of individual assessment is suspect. Compared with a clinical interview, sensitivity of the depression scale is only 58% (correct classification = 74% , kappa = 0.47). Readjustment of scoring may produce higher sensitivities and correct classifications. The primary reasons for problems with the Zung depression scale with older patients is the possible presence of vegetative symptoms and cognitive loss secondary to dementia.

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5. Miscellanious.

5.1. Measurement Scales.

CAREGIVER QUALITY OF LIFE

Source:

Mohide, E.A., Torrance, G.W., Streiner, D.L., Pringle, D.M., Gilbert, R.
Measuring the wellbeing of family caregivers using the time trade-off technique.
Journal of Clinical Epidemiology; 41, 1988, no. 5, p. 475-482

Purpose:

The measurement of the quality of life of the caregivers of elderly relatives.

Description:

A five item questionnaire was developed to help the caregiver define explicitly his or her state of well-being in relation to standardized hypothetical states. The five items are concerned with the following dimensions of well-being: the extent to which one feels physically well and energetic; that one is happy and free from worry or frustration; that one has sufficient time to socialize with family and friends; that one gets an adequate amount of undisturbed sleep; that one gets along well with the person being cared for. The possible answers to each dimension are: 'almost allways', 'most of the time', 'half of the time' and 'rarely'.

Validity and reliability:

The relationship of the caregivers' wellbeing state to the level of general life stress was assessed by correlating the score with the degree of stress reported by the subjects on a visual analogue scale. The visual analogue scale explained 23% of the variance of the caregiver quality of life instrument ($r = -0.480$, $p < 0.001$). The magnitude of the correlation indicates that the two instruments are not measuring the same attribute. Test-retest reliability was assessed by measuring the subjects' utility for their own state. The intraclass correlation for

28 subjects was 0.787 ($p < 0.001$). A paried t-test showed no significant differences in the mean scores.

List of references:

Mohide, E.A., Torrance, G.W., Streiner, D.L., Pringle, D.M., Gilbert, R.
Measuring the wellbeing of family caregivers using the time trade-off technique.
Journal of Clinical Epidemiology; 41, 1988, no. 5, p. 475-482
Nivel

> In the absence of a quality of life instrument which is applicable to the caregivers of elderly relatives and amenable to a cost-utility analyses, the Caregiver Quality of Life Instrument (CQLI) was developed using Torrance's time trade-off technique. The CQLI was administered to 30 family caregivers and 10 relatives of well elderly. Utility scores were obtained for three standardized caregiver situations and the subject's own state. The CQLI could be completed by almost all subjects. Good test-retest reliability was established. The subjects were able to discriminate between degrees of caregiver well-being using standardized states and the CQLI scores discriminated among groups of subjects. The CQLI detected within-subject change in caregivers whose relatives received institutional respite care. The CQLI appears to be feasible, reliable, valid, and responsive to change. Further CQLI applications and research are recommended.

LIFE STYLE SATISFACTION SCALE

Source:

Heal, L.W., Chadsey-Rusch, J.
The lifestyle satisfaction scale: assessing individuals' satisfaction with residence, community setting, and associated services.
Applied Research in Mental Retardation; 6, 1985, p. 475-490

Purpose:

The Lifestyle Satisfaction Scale measures manifest satisfaction of an individual with their life space, including their residence and its associated features, their friends, their community, and their opportunities.

Description:

The Lifestyle Satisfaction Scale items were arranged by concept to form the following four subscales: community satisfaction, friends and free time satisfaction, satisfaction with services, and general satisfaction. An overall score is obtained by a weighted sum of the subscales. The questionnaire contains 29 questions, posed by an interviewer.

Validity and reliability:

Validation and reliability have been tested by Heal and Chadsey-Rusch among mentally retarded persons, demonstrating high test-retest and interrater reliabilities and satisfactory cross-validation results.

List of references:

Heal, L.W.
The Lifestyle Satisfaction Scale (LSS): assessing individuals' satisfaction with residence, community setting, and associated services.
Applied Research in Mental Retardation; 6, 1985, no. 4, p. 475-490
Nivel (C 2004)

> Satisfaction of mentally retarded persons with their quality of life is an important outcome measure of deinstitutionalization. The Lifestyle Satisfaction Scale (LSS) was developed to assess mentally retarded persons' satisfaction with their residence and its community setting and associated services. An acquiescence subscale makes it possible to correct satisfaction scores for acquiescence bias. Empirical data indicate that this experimental version of the LSS has internally consistent subscales and good test-retest and interrater reliabilities.

SHELTERED CARE ENVIRONMENT SCALE

Source:

Lemke, S., Moos, R.H.
Measuring the social climate of congregate residences for older people: sheltered care environment scale.
Psychology and aging; 2, 1987, no. 1, p. 20-29

Purpose:

The scale is a social climate measure for use in congregate residences for the elderly. It is developed to provide administrators and staff of congregate residences for older people with a relatively easy way to assess a facility's social environment scale.

Description:

Observations in sheltered care settings, interviews with residents, staff, and administration, and discussions with state and local government inspectors, and literature researchers have identified potential items. The items touched upon three rather broad domains: relationships, personal growth, and system maintenance and change domains. These procedures resulted in a 63-item version. The three domains can be described as follows: in the relationship domain is measured how helpful and supportive staff members are towards residents, how involved and supportive residents are with each other. Here, also the extent is measured to which residents express anger and are critical of each other and of the facility. In the domain of personal growth it is assessed how self-sufficient residents can be encouraged to handle their personal affairs, how much responsibility and self-direction they exercise, and the extent to which residents are encouraged to openly express their feelings and personal concerns. In the system maintenance and change domain the importance of the organization is assessed, as is the influence that is exerted by one's physical comfort and one's place of residence.

Validity and reliability:

The subscale internal consistencies in a revision sample of 151 national facilities with more than 3000 resident and 1500 staff questionnaires were available. The subscales all had acceptable to high internal consistency, only the Resident Influence subscale's internal consistency was moderate.

List of references:

Lemke, S., Moos, R.H.
Measuring the social climate of congregate residences for older people: Sheltered Care Environment Scale.
Psychology and Aging; 2, 1987, no. 1, p. 20-29
Nivel (C 2005)

> The researchers developed the Sheltered Care Environment Scale (SCES) to provide researchers and practitioners with a practical means of assessing the social climate in congregate residential settings for the elderly. The SCES, a 63-item yes/no questionnaire that can be completed by residents and staff members of a facility, taps their perceptions of seven dimensions of the social environment. These dimensions concern the quality of relationships, the personal growth orientation present in the facility, and maintenance and change of the social system. The SCES discriminates among settings, has moderate to high internal consistency and split-half reliability, and is sensitive to environmental change against a backdrop of relative stability over time. The SCES reflects actual, agreed-on qualities of a setting and is relatively unaffected by characteristics of the respondent. Normative data are available from a national

sample of 244 facilities representing the variety of residential settings available to the elderly.

5.2. Literature -miscellaneous-

Bowling, A.
Measuring health. A review of quality of life measurement scales.
Open University Press: Buckingham 1991. 200 p.
Nivel

> This book reviews a wide range of measures of functional ability and health status, as well as broader measures of health such as those concerned with psychological well-being (e.g. anxiety and depression), emotional well-being (e.g. life satisfaction, morale and happiness), and social networks, support and loneliness. Every measurement scale is discussed very thoroughly on content, validity, reliability, and scoring. In chapter one the author gives an explanation of the conceptualization of functioning, health and quality of life. In chapter two the theory of measurement is discussed. In chapters 3 to 7 the review of the scales can be found.

Clark, P., Bowling, A.
Quality of everyday life in long stay institutions for the elderly. An observational study of long stay hospital and nursing home care.
Social Science and Medicine; 30, 1990, no. 11, p. 1201-1210
Nivel

> The observational study reported here was part of a wider evaluation of long stay care for elderly people. The observational study showed that it was essential not to rely on interview material alone. Qualitative techniques provided insights into behaviours, moods and interactions which would have been difficult to measure using traditional survey techniques. The data collected was analysed in relation to the theory of the total institution and disengagement theory. Although the survey data presented evidence of block treatment of individuals in both long stay hospital wards and smaller nursing homes for the elderly, the observational study showed that only the ward setting conformed closely to Goffman's concept of the total institution. In addition, the study indicated that involvement in activities and interaction with others promotes positive feelings among elderly people, and questions the validity of disengagement theory.

Deniston, O.L., Carpentier-Alting, P., Kneisley, J., Hawthorne, V.M., Port, F.K.
Assessment of quality of iife in end-stage renal disease.
Health Services Research; 24, 1989, no. 4, p. 555-578
Nivel

Ten different multi-item indexes and nine single-item measures were used to assess the quality of life of patients undergoing one of four major modalities of treatment for end-stage renal disease (ESRD). Assessments were made on a population-based sample of Michigan patients with onset of ESRD after November 1, 1981, during the period May 1984 to September 1986. The nature of these measures is described and correlations among them are reported. The correlations suggest that these indexes tend to represent either function or feeling, with moderate relationships within the two clusters but little between them. Findings are also reported in terms of age, race, and sex. Depending on the measure chosen to assess quality of life, different conclusions about the relationship of quality of life to these demographic characteristics will be reached.

Epstein, A.M., Hall, J.A., Tognetti, J., Son, L.H., Conant, L.
Using proxies to evaluate quality of life. Can they provide valid information about patients' health status and satisfaction with medical care?
Medical Care; 27, 1989, no. 3 Suppl, p. S91-98
Nivel

Instruments using interview data to measure health status have been increasingly used to measure patient outcomes. To assess the potential utility of proxy responses about health status when subjects are unable to respond, the authors compared the responses of 60 subject and proxy pairs on instruments measuring overall current health, functional status, social activity, emotional health, and satisfaction with medical care. Proxies were asked to respond as they thought the subject would. Subject and proxy responses were strongly correlated with each other for overall health, functional status, social activity, and emotional health (p less than 0.001), and moderately correlated for satisfaction (p less than 0.005). Proxies reported lower emotional health and satisfaction than did subjects (p less than .005). Proxy and subject mean responses were generally similar for overall health, functional status, and social activity. However, those proxies who spent more time per week helping the subject rated the subject's functional status and social activity as more impaired than did the subject (p less than 0.05). Subjects who had poorer overall health tended to rate their health relatively lower than did the proxies (P less than 0.05). These results suggest that use of proxies intermingled with subjects to measure health status through interview may lead to biased results.

Ferrell, B., Wisdom, C., Wenzl, C., Brown, J.
Effects of controlled-released morphine on quality of life for cancer pain.
Oncol-Nurs-Forum; 16, 1989, no. 4, p. 521-526
KNAW

Oncology nursing is concerned with pain relief and overall Quality of Life (QOL). The purpose of this study was to determine the effects of controlled-release morphine on QOL for patients with cancer. Eighty-three subjects were randomly assigned in a clinical trial of short-acting versus controlled-release analgesia. Data was collected in a repeated measures design every 2 weeks for 6 weeks yielding a total of 240 visits. Five instruments were used to assess QOL, pain, and functional status. Study findings indicate improved pain management and important nursing implications for the management of analgesia-induced gastrointestinal symptoms. Through appropriate pain management with pain therapies such as controlled-release analgesia, nurses can greatly enhance QOL for the patient with cancer.

Foreman, M.D.
Assessing the quality of life of elderly persons.
Seminars in Oncology Nursing; 6, 1990, no. 4, p. 292-297
KNAW

Quality of life assessment data for the elderly patient with cancer should be used to plan, implement, and evaluate treatment protocols. Yet, data are lacking about the quality of life of this patient population. Characteristics of the environment and conceptual and operational issues must be addressed in order to obtain reliable and valid assessment data about the quality of life of elderly persons with cancer.

Huber, D., Henrich, G., Herschbach, P.
Measuring the quality of life: a comparison between physically and mentally chronically ill patients and healthy persons.
Pharmacopsychiatry; 21, 1988, no. 6, p. 453-455
Nivel (C 2006)

The FLZ (fragen zur lebenszufriedenheit) seems to be a suitable method for reliably measuring the quality of life of healthy persons and of patients, as well as differentiating between persons and groups. The concept of weighting satisfaction with the individual importance of each of the items and of measuring several dimensions seems to make sense in view of the data. The modified version of the FLZ is currently being employed in various hospitals. The assessment of a larger normative sample is being planned. QL shall then be differentiated from the construct mood and be compared to objective data. In addition, the sensibility to change of the questionnaire shall be tested in a process analysis.

Kane, R.L., Bell, R., Riegler, S., Wilson, A., Kane, R.A.
Assessing the outcomes of nursing-home patients.
Journal of Gerontology; 38, 1983, no. 4, p. 385-393
RUU

This paper describes the development of multidimensional measures of nursing home patients' functioning. The technique was designed to gather information directly from the patients, using demonstrated ability in place of self-report whereever possible. Six domains are tapped: physiologic, activities of daily living, affective, cognitive, social, and satisfaction. Test-retest reliability ranges from 0.59 for social interaction to 0.85 for affect. Validity was tested by replication on successive waves of data as well as discriminant and content validity.

Kane, R.A., Kane, R.L.
Assessing the elderly: A practical guide to measurement.
Lexington books: Massachusetts 1981. 302 p.
RUL

The book has four topical chapters between its analytical introduction and conclusion. Each of these chapters covers a different kind of tests in geriatrics: physical functioning, mental functioning, social functioning, and multidimensional measures. Within each section the authors provide summaries of the major psychological tests. These summaries are given both in a narrative form and also in tables which compare the tests in terms of general concepts, selected items, scoring, administration, reliability, and validity.

McDowell, I., Newell, C.
Measuring Health: A guide to rating scales and questionnaires.
Oxford University Press: New York 1987.
Nivel

This book gives an overview of many rating scales used in health care. All scales are discussed with respect to validity, reliability, and purpose. In many cases a copy of the scale can be found. Although the book is not specialized in scales for the elderly, a lot of questionnaires which are discussed in this book are very interesting with respect to the measurement of the elderly.

Michaelsson, E., Norberg, A., Samuelsson, S.M.
Assessment of thirst among severely demented patients in the terminal phase of life. Exploratory interviews with ward sisters and enrolled nurses.
International Journal of Nursing Studies; 24, 1987, no. 2, p. 87-93
Nivel (C 2007)

The dying patients' experience of thirst is an important aspect of his quality of life. The ward sister and an experienced enrolled nurse at 30 geriatric wards in the Southern Health Care Region of Sweden were interviewed about their methods of assessing thirst among severely demented patients in the terminal stage of life. The answers could be classified into six categories: a priori opinion; intuition; identification with the patient; amounts of fluids received; the patient's behaviour; and state of hydration. All the reported methods are problematic. There is a need of development of more valid methods.

Mor, V.
QOL measurement scales for cancer patients: differentiating effects of age from effects of illness.
Oncology Williston Park; 6, 1992, no. 2 Suppl, p. 146-152
Nivel (C 2008)

Increasingly, researchers studying the effects of medical treatments and health policy initiatives consider morbidity and not just mortality outcomes. Since older cancer patients are increasingly involved in chemotherapeutic and radiation therapy trials, it is important to know that commonly used quality of life measures are applicable to the aged as well as the younger population. Do older patients manifest poorer quality of life at various points in the disease course than do younger patients? The author analyzed data from three studies on (1) newly diagnosed cancer patients, (2) patients on chemotherapy, and (3) advanced cancer patients regarding quality of life and compared the scores observed among older and younger individuals. After correcting for comorbidity and physical frailty, no quality of life differences between older and younger patients were found.

Moss, M.S., Lawton, M.P., Glicksman, A.
The role of pain in the last year of life of older persons.
Philadelphia Geriatric Center.
Journal of Gerontology; 46, 1991, no. 2, p. p 51-57
RUU

A random sample of 200 decreased older community residents was studied with a focus on the role of pain in the last year of life. Interviews with a surviving close person elicited retrospective reports. Pain increased over the final year; one month before death 66% felt pain frequently or all of the time, substantially higher than a matched comparison group of living persons (24%). For both groups across the year, pain was associated with most measures of behavioral competence, perceived quality of life, and psychological well-being. Hierarchical multiple regressions indicated that background and health variables explained 28% to 32% of the variance of pain over the year. Controlling for background variables and health, pain contributed significantly to lowered happiness and to depression, but had no independent impact on hope and interest in the world. After controlling for physical health, the older old were judged to have less pain than the younger old.

O'Connor, D.W., Pollitt, .P.A., Hyde, J.B., Fellows, J.L., Miller, N.D., Roth, M.
A follow-up study of dementia diagnosed in the community using the Cambridge Mental Disorders of the Elderly Examination.
Acta Psychiatrica Scandinavica; 81, 1990, no. 1, p. 78-82
RUU

Elderly Cambridge residents diagnosed as demented using the Cambridge Mental Disorders of the Elderly Examination (CAMDEX) were reviewed approximately 12 months later. Diagnoses were confirmed in 133 of 137 surviving cases (97%). Subjects said to have minimal dementia (cognitive impairment insufficient to warrant a diagnosis of dementia proper) had a varied outcome. Only 6 out of 29 survivors showed progressive intellectual deterioration and 13 were reclassified as normal. Subjects passed as normal in the first year of the study were reviewed using the Mini-Mental State Examination. There is no certainty about how many were actually dementing, but the findings suggest that only a small number of false negative diagnoses were made in the first year of the study.

Oldenburg, B., Macdonald, G.J., Perkins, R.J.
Prediction of quality of life in a cohort of end-stage renal disease patients.
Journal of Clinical Epidemiology; 41, 1988, no. 6, p. 555-564
Nivel

In order to assess the physical, psychological and social impact of end-stage renal disease (ESRD) 102 patients on maintenance dialysis were assessed on standardized self-report measures, a structured interview schedule, a physician assessment and biochemical data. Patients were assessed on two occasions, 18 months apart. Principal components analysis was used to develop a small number of dimensions to characterize quality of life. Multiple regression analysis of patient variables on initial factor scores (cross-sectional analysis) showed that; hospital dialysis and length of time on dialysis were predictive of more psychological distress; males were less compliant than females; patients on peritoneal dialysis made a poorer adjustment to their illness; and, hospital dialysis was predictive of more social distress. As long term predictors (prospective analysis): initial level of psychological distress predicted long-term level of psychological, social distress and illness adjustment; and initial level of compliance predicted long-term level of compliance.

Oleske, D.M., Heinze, S., Otte, D.M.
The diary as a means of understanding the quality of life of persons with cancer receiving home nursing care.
Cancer-Nurs; 13, 1990, no. 3, p. 158-166
Nivel (C 2014)

In order to gain insight into the quality of life from a patient perspective, individuals with cancer receiving home nursing care were given diaries to record the occurrence of health problems. On the average, health problems were reported on 35% of the recording days. Concerns related to somatic discomfort accounted for 76% of all health problems reported. Overall, digestive problems were the most commonly reported category of health problems. Those with lung cancer reported the highest average number of health problems per person (means = 9.3) and the greatest diversity of problems during the recording period. The results also suggest a common core of health problems important to cancer patients, with the relative importance of these problems varying by cancer diagnosis.

Padilla, G.V., Ferrell, B., Grant, M.M., Rhiner, M.
Defining the content domain of quality of life for cancer patients with pain.
Cancer-Nurs; 13, 1990, no. 2, p. 108-115
Nivel (C 2009)

This study identified attributes that define the content domain of quality of life in a sample of 41 cancer patients with chronic pain. Patients were asked four open-ended questions about the meaning of quality of life, what contributes to a good or poor quality of life, and how pain influences quality of life. Content analysis of responses revealed three categories of attributes that embrace the quality-of-life content domain. The first category is physical well-being. It includes general functioning and disease/treatment-specific attributes. The second is psychological well-being. It includes affective-cognitive attributes, coping ability, meaning of pain and cancer, and accomplishment attributes of quality of life. The third is interpersonal well-being. It incorporates social support and social/role functioning attributes. Replications of the current study in other groups of patients may yield data to support a two-part, multidimensional quality-of-life instrument. A norm-referenced measure can be used to evaluate quality of life in terms of attributes that are salient regardless of the disease or treatment. A domain-referenced measure may be used to evaluate attributes whose salience is dependent on specific disease, treatment, or life events.

Pearlman, R.A., Uhlmann, R.F.
Quality of life in chronic diseases: perceptions of elderly patients.
Department of Medicine, University of Washington.
Journal of Gerontology; 43, 1988, no. 2, p. M25-M30
RUU

Quality of life is an important consideration in medical decisions involving elderly patients and a clinical outcome measure of health care. Elderly outpatients (N = 126) with five common chronic diseases (arthritis, ischemic heart disease, chronic pulmonary disease, diabetes mellitus, and cancer) and their physicians were interviewed to better characterize patient quality of life. Patients generally perceived their quality of life to be slightly worse than "good, no major complaints" in each chronic disease. Physicians' ratings were generally worse than and only weakly associated with the patients' ratings of quality of life in each chronic disease. Significant independent correlates of patients' ratings of quality of life included the patients' perceptions of their health, interpersonal relationships, and finances. These results suggest that quality of life in elderly outpatients with chronic disease is a multidimensional construct involving health, as well as social and other factors. Physicians may misunderstand patients' perceptions of their quality of life.

Pearlman, R.A., Uhlmann, R.F.
Quality of life in elderly, chronically ill outpatients.
Journal of Gerontology; 46, 1991, no. 2, p. M31-M38
RUU

Quality of life (QL) in elderly outpatients is poorly characterized. The authors interviewed 258 elderly outpatients from three health care settings to identify the attributes and events that affect self-assessment of QL. These outpatients rated their QL as acceptable, citing medical care, health, interpersonal relationships, financial status, and functional status as affecting their QL. Overall QL ratings were not strongly associated with objective indicators such as demographic characteristics and use of health care services. Subjective indicators, including patient perceptions of health, memory, and financial concerns, were correlated independently with global QL. It is concluded that older, chronically ill patients generally consider their QL to be acceptable and affected by a variety of factors, including their perceptions of their emotional, socioeconomic, intellectual, and physical functioning. Furthermore, QL is poorly associated with objective indicators. Thus, in assessing the QL of elderly, chronically ill outpatients, physicians should elicit information regarding these perceptions.

Pearlman, R.A., Uhlmann, R.F.
Quality of life in the elderly: Comparisons between nursing home and community residents.
Journal of Applied Gerontology; 7, 1988, no. 3, p. 316-330
RUU

47 community residents were matched by age and sex to 47 nursing home residents. All subjects were aged 65 years and older. Questionnaire data showed that global quality of life (QOL) ratings were similar between both groups, suggesting a self-perceived acceptable QOL. Housing (the nursing home), finances, health, and interpersonal relationships were associated with global QOL for nursing home subjects; for community participants, health, disability, finances, anxiety, and interpersonal relationships were associated with QOL. The results suggest that health care providers cannot assume that older nursing home residents perceive their QOL to be worse than that of other elderly persons.

Philp, I., Mutch, W.J., Devaney, J., Ogston, S.
Can quality of life of old people in institutional care be measured?
Journal of Clinical and Experimental Gerontology; 11, 1989, no. 1-2, p. 11-19
RUU

> The authors developed a methodology for measurement of quality of life (QOL) in continuing hospital care and in nursing homes, using the structure and meaning of a methodology for measuring QOL in residential care by S.M. Peace et al (1979). Clarity and acceptability of questionnaires were evaluated by staff persons at 3 continuing care wards and 3 nursing homes. Nursing staff were issued morale questionnaires, and patients were interviewed for mental status. Ward sisters and nursing home administrators were interviewed for policy and environmental factors. The consensus of all staff members was that the measures were relevant and applicable to hospital and private nursing home long-term care as well as residential care of the elderly.

Rubenstein, L.Z., Rubenstein, L.V.
Multidimensional assessment of elderly patients.
Advances in Internal Medicine; 36, 1991, p. 81-108
Nivel (C 2010)

> The most characteristic aspect of geriatric medicine is its multidimensional approach to the management of the complex problems of the frail elderly. Dysfunction of the elderly on several axes, organ dysfunction, neurobehavioural disorders, psychosocial impairment, and deterioration of social and economic supports all require accurate assessment for effective geriatric management and for prognosis, placement, and resource allocation. Intensive clinical investigation of the techniques, effectiveness, and cost of multidimensional geriatric assessment has resulted in the accumulation of considerable data, some difficult to interpret and apply to practical issues of health care. The researchers review the methodology and applications of geriatric assessment, which is of seminal importance to all clinicians who are charged with management of frail elderly.

Rubenstein, L.V., Calkins, D.R., Greenfield, S.
Health status assessment for elderly patients: Report of the Society of General Internal Medicine Task Force on Health Assessment.
Journal of the American Geriatrics Society; 37, 1989, no. 6, p. 562-569
Nivel (C 2011)

> The article discusses the need for determining functional status, quality of life, and health status in the elderly. Functional status includes physical, mental and social functioning in daily life; quality of life includes socioeconomic or environmental factors (financial security, availability of food, quality of housing); and health status includes physical, mental, and social health. Assessment tools suitable for inclusion in the clinical charts

of elderly patients are suggested and guidelines are provided for when and where they should be applied.

Schnack, S., Eigler, J., Schiffl, H., Gurland, H.J., Segerer, W.
The quality of life of older patients under the conditions of long-term dialysis.
Deutsche Medizinische Wochenschrift; 115, 1990, no. 27, p. 1043-1049
Nivel (C 2012)

A questionnaire enquiry was undertaken to assess aspects of quality of life of 100 older patients (60 women, 40 men; mean age 73.2 [65-88] years) who underwent haemodialysis for an average of 35.6 +/- 28.3 months. The majority of patients (85%) showed a positive attitude towards the haemodialysis treatment, but 14 signified that they would not again submit to this form of treatment. The replies of these patients in other ways also corresponded to a depressive state (p less than 0.001) with problems of coping with therapeutic measures (p less than 0.005). Reasons for this were in the first place severe physical impairment by additional disease and, secondly, psychosocial factors. Nine of the 14 patients were women living alone who showed signs of loneliness. It seemed that a "negative" attitude towards haemodialysis is largely determined by a patient's social environment.

Spilker, B.
Quality of life assessments in clinical trials.
Raven Press:New York 1990. 470 p.
Nivel

The main questions in this book which are discussed are: what are the standard tests for measuring quality of life? How can new tests be developed and validated? How does one choose the best quality of life test for specific diseases and patient populations? How do quality of life data influence decisions in health care industry?
The first section provides an overall perspective on quality of life issues. Specific chapters describe definitions, concepts, appropriate approaches, and basic issues in this area. Section II presents standard scales, tests, and approaches by focusing on the individual component categories of quality of life. Section III focuses on a number of special perspectives that are pertinent for viewing this field: cultural aspects, marketing, drug industry, and regulatory considerations. The fourth section concerns special patient populations and approaches. These include geriatric patients. The final section discusses problems in a wide variety of therapeutic areas.

Strang, P., Qvarner, H.
Cancer-related pain and its influence on quality of life.
Anticancer Research; 10, 1990, no. 1, p. 109-112
KNAW

In a prospective study 84 consecutive patients with cancer-related pain were interviewed and they also completed a comprehensive self-questionnaire concerning their pain and its influence on physical, emotional, cognitive and social qualities of life. Visual Analogue Scales, VAS, (10 cm lines) were used. The mean intensity of pain was 3.9 (range 1-9). Sixty-one (73%) patients experienced two or more different types of pain. Anxiety and depressive feelings correlated with the intensity of pain. The parameters were significantly higher in patients who had no pain-free or almost pain-free periods. Pain had a negative influence on ADL functions and on concentration in 76% and 56% of the patients, respectively. Social activities such as visits and conversations decreased significantly with increasing pain. It is concluded that unrelieved pain not only causes physical suffering, but also influences different aspects of quality of life. As effective pain control is achievable in most cases with already existing analgesics and complementary methods, more efforts should be focused on pain relief.

Uhlmann, R.F., Pearlman, R.A.
Perceived quality of life and preferences for life - sustaining treatment in older adults.
Archives of Internal Medicine; 151, 1991, no. 3, p. 495-497
Nivel (C 2013)

The authors investigated whether perceived quality of life is associated with preferences for life-sustaining treatment for older adults. Participants included chronically ill, elderly outpatients (N = 258) and their primary physicians (N = 105). Patients and physicians were independently administered a questionnaire regarding patient quality of life and preferences for cardiopulmonary resuscitation and mechanical ventilation for the patient. Physicians rated patients' global quality of life, physical comfort, mobility, depression, anxiety, and family relationships significantly worse than did patients. Nearly all perceptions of patients' quality of life were significantly associated with physicians' perceptions, but not patients' treatment preferences. Patient-physician agreement on patient global quality of life was not significantly associated with agreement regarding treatment preferences. The authors conclude that primary physicians generally consider their older outpatients' quality of life to be worse than do the patients. Furthermore, physicians' estimations of patient quality of life are significantly associated with physicians' attitudes toward life-sustaining treatment for the patients. For the patients, however, perceived quality of life does not appear to be associated with their preferences for life-sustaining treatment.

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In 1985 and 1987 the authors asked by a questionnaire the families how chemotherapy was experienced by patients who had died from cancer in the period 1980-1986 and by themselves. The questionnaire was sent to the families of 201 patients. 150 were returned, of which 137 could be used. Alopecia, worrying, fatigue and nausea are the most serious complaints for the patient. Crying and despair of the patient weighed most heavily on the family. Although 69% of the patients experienced chemotherapy as a heavy, a very heavy or an extremely intolerable burden, also 69% of the patients experienced the prolonging of life by chemotherapy as much, very much or exceedingly worthwhile. The families' judgments about the complaints are in agreement with those of patients in another research. The results are useful for giving information to patients who will undergo chemotherapy.

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