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Aims: Quality of life (QOL) is established as a central concept and target for research and practice in the field of health and medicine. However, QOL is a complex concept that is interpreted and defined differently within and between disciplines, and this is also the case in health and medicine. Thus, there is a continuing debate about the meaning and content of QOL and how it should be measured. The aim of the present study was to perform a systematic review of QOL research in medicine and health, and describe country of origin, target groups, instruments, design and conceptual issues in the extracted studies. **Methods:** A Systematic review (one week) was conducted with literature searches in the databases Scopus, covering Embase, MEDLINE, CINAHL and PsycINFO, to identify research studies on QOL and Health-related quality of life (HRQOL) published during one random week in November 2016. To evaluate the conceptual and methodological rigor, we used the 10 predefined criteria developed by Gill and Feinstein. **Results:** The findings show that QOL research is truly international, involves a variety of target groups, use different research designs and a variety of QOL measures. According to the evaluation criteria developed by Gill and Feinstein, most articles still have a low-quality score. Only 13 % of the articles provided a definition of the concept of QOL, few studies (6%) distinguished QOL from HRQOL, and none of the studies provided a way for the participants to select additional items that were important to them. Criteria that were fulfilled most frequently were; (i) stating the domains of QOL to be measured, (ii) giving a reason for choosing the instruments they used, and (iii) aggregating the results from multiple items. **Conclusions:** Based on the current evaluation of methodological and conceptual clarity in QOL research, we conclude that the majority of QOL studies in health and medicine still have conceptual and methodological challenges.

(1120) The effect of implementation a program the physical activity in the functionality and Quality of Life in old people

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Aims: Introduction An increase in the number of elderly people with chronic diseases living in the community requires those responsible for public health to promote policies to promote the quality of life and the functionality of these people. Scientific evidence suggests that the promotion of physical activity reduces the risk of numerous diseases, such as ischemic heart disease, stroke, diabetes mellitus and cognitive disorders, as well as total mortality in the elderly. The aim of this study is implementation of a program of physical activity to improve the functionality and quality of life in old people. **Methods:** This is a prospective study. The study includes 17 people, aged between 66 and 83 years old, 75% female, 65% married, were all retired and all had functional independence. The data collection was performed on senior's universities in Lisbon - Portugal. It was applied in the program of self-regulation the promotion of physical activity (IPPA), 90 min for a week, lasting seven weeks. We used one question "Please classify your functionality?" with an answer in numerical scale between "0" and "11" and the SF-36 before implementing the program (time A) and end implementing the program (time B). **Results:** The correlations between the functionality perception and quality of life, before application of IPPA ($r=0.32$, $p<0.05$), and the end of the

implementation of IPPA ($r=0.67$, $p<0.01$). When we evaluated the correlation between SF-36 dimensions and functionality we obtained: Physical Health TA ($r=0.39$, $p<0.05$), TB ($r=0.53$, $p<0.01$); Physical Role Limitations TA ($r=0.40$, $p<0.05$), TB ($r=0.60$, $p<0.01$); Emotional Role Limitations TA ($r=0.47$, $p<0.05$), TB ($r=0.52$, $p<0.01$); Pain NS; Well-being TA ($r=0.66$, $p<0.01$), TB ($r=0.72$, $p<0.01$); Energy TA ($r=0.42$, $p<0.05$), TB ($r=0.67$, $p<0.01$); Health in General NS; Social function TA ($r=0.48$, $p<0.05$), TB ($r=0.56$, $p<0.01$). **Conclusions:** We think this program promotion and awareness of the importance of physical activity, using the conceptual model of self-regulation, can be very beneficial for Functionality and quality of life in old people. We believe it could be a model of community implementation for the health promotion of this population.

Registries

(1124) Auxiliary information in multiple imputation models: effects on estimated change in patient-reported outcomes from clinical registry data

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Aims: Clinical registries, which capture patient-reported outcomes (PROs) at the point of care, often contain large amounts of missing observations. Multiple imputation (MI) methods are popular to address missing data in PROs, but assume non-ignorable missingness. Inclusion of auxiliary variables in MI models can address violations of this assumption. We examined the effects of using auxiliary information when estimating change in PROs from clinical registries. **Methods:** The study was conducted using computer simulation and a real-world example in which healthcare utilization data were linked to clinical registry data. For the numeric example, data were from a regional joint replacement registry for 13,700 patients (female: 59%; 75+ years: 27%) with complete hip or knee replacement. PROs measured prior to and one year after surgery included the Oxford Hip and Knee (OHS, OKS) and SF-12 Physical and Mental Component Summary (PCS, MCS) scores. Random-effects models estimated change in PRO scores; fixed-effect covariates included demographics and comorbidity. Complete case analyses were compared to MI analyses with and without healthcare utilization measures (physician visits, hospitalizations, prescription medications) as auxiliary variables. Analyses were stratified by type of joint. Simulation parameters included percent of missing observations, sample size, number of auxiliary variables, and magnitude of variable correlations. **Results:** Only 61.3% of joint replacement patients had complete data at pre- and post-surgery occasions. Age, comorbidity, number of physician visits and number of medications were associated with missing data. Estimated change in PRO scores were often larger, by up to 10%, for MI analyses than for complete case analyses, indicating greater improvements in physical and mental health outcomes. Standard errors were up to 15% smaller for MI models than complete case models, indicating greater estimation efficiency; however, the differences between MI models with and without auxiliary variables were frequently less than 5%. Computer simulations revealed that improvements in efficiency when using auxiliary variables is influenced by a number of data characteristics. **Conclusions:** MI models can often be improved via the use of auxiliary variables. This study, which combined computer simulation with real-world analyses, provides useful insights for implementing MI models with clinical registries exhibiting large amounts of missing data.