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Low educational level is associated with worse function and worse quality of life in rheumatoid arthritis patients

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Objetivos (Objectives):

Low educational level, such as seen in Portugal among the general population, negatively affects chronic diseases and has been associated with worse rheumatoid arthritis (RA) outcomes. We studied whether lower educational levels influenced function and quality of life (QOL) among RA patients.

Metodologia (Methodology):

1,053 patients, (21.3% with below 4, 42.4% with 4, and 36.3% with more than 4 years of education) have been participating in an on going biannual cohort of Portuguese RA patients since 2003, NDB Portugal. Questionnaires include sociodemographics, disease characteristics, functional and QOL measures.

Univariate (UV) generalized estimating equations (GEE) were used to assess the influence of (6 month-lagged) education (lowest levels compared to the highest level) on function as measured by the health assessment questionnaire (HAQ, 0-3, 3 is worst), an instrument to evaluate function in terms of limitations of activities of daily living, and Qol (EuroQOI (0-1, 0 is worst), SF-36 physical – PCS (0-100, 0 is worst), and SF-36 mental – MCS components (0-100, 0 is worst)). Multivariate (MV) GEE permitted adjustment for potential (6 month-lagged) confounders (age, sex, married status, prednisone and biologic therapy, total comorbidity score, smoking status and disease duration). Backward stepwise selection was used to obtain the final models in MV analysis. 95% confidence intervals (CI) were calculated and a 5% level of significance was used.

Resultados (Results):

Univariate and multivariate analyses showed that lower educational levels were significantly associated with worse HAQ scores (< 4 years vs > 4 years: β ; 95% CI: 0.50; 0.38, 0.63) and worse QOI, EuroQOI (β ; 95% CI: -0.19; -0.24, -0.14), PCS (β ; 95% CI: -5.17; -6.45, -3.89) and MCS (β ; 95% CI: -3.25; -4.95, -1.55). Lower educational levels, compared to the highest, had a large impact on HAQ scores, increasing them by 0.50. This discrepancy

between lowest and highest education levels was strongest in PCS, compared to MCS (-3.25 MCS vs -5.17 PCS).

Conclusões (Conclusions):

Among this cohort of Portuguese RA patients, we found that lower educational levels were associated with worse quality of life and especially worse function.