

## **Determinants of subjective social position in the Gazel Cohort**

Céline Ribet, Alice Gueguen, Archana Singh-Manoux, Marie Zins, Marcel Goldberg

U687: INSERM-CNAMTS-IFR69, Saint-Maurice, France

Recent studies have used a subjective measure of social position, known as subjective because it refers to the perception that an individual has of his/her place in the social hierarchy. In particular, a paper on Whitehall II data has shown: 1) that subjective social position (SSP) was determined by occupation position, education, household income, satisfaction with standard of living, and feeling of financial security regarding the future; 2) that psychological variables (hopelessness, control at work, general life control, mental health, vigilance, hostility, and optimism) were not independent predictors of SSP (Singh-Manoux et al., 2003).

The goal of the current project is to identify which criteria people use to assign themselves subjective social position (SSP) in the GAZEL Cohort. The study concerned retired men (n= 9,644) aged 55-65 years in 2004. SSP was measured using a scale at 10 levels on which individuals must themselves represent the place they think to have in the social hierarchy.

This presentation will look at two aspects: 1) which socioeconomic factors, among variables measuring current and past socioeconomic circumstances, and also future prospects, were predictors of SSP and part of SSP variability was explained by them; 2) analyse of different health and well-being measures as independent predictors of SPP (after adjusting for socioeconomic determinants).

**DETERMINANTS OF SUBJECTIVE SOCIAL POSITION AMONG RETIRED MEN AND WOMEN IN THE GAZEL COHORT**

C Ribet, A Gueguen, A Singh-Manoux, M Zins, M Goldberg (U687: INSERM-CNAMTS-IFR69, Saint-Maurice, France)

**CONTEXT:** Recent studies have used a subjective measure of social position, said subjective because it refers to the perception that an individual has of his/her place in the social hierarchy. In particular, it has been observed that subjective social position (SSP) was essentially determined by occupation, education, household income, satisfaction with standard of living, and feeling of financial security regarding the future.

**OBJECTIVE:** To examine socioeconomic and health-related factors as determinants of SSP in a population of retired men and women.

**METHODS:** Data used were based on the GAZEL cohort composed by 20,624 volunteers, employed at the French Electricity and Gas company and annually followed-up since 1989. 9,095 retired men and women aged 50-65 years in 2004 were included for this analysis. SSP was measured using a ladder at 10 levels on which individuals must themselves represent the place they think to have in the social hierarchy. Three categories of determinants were analysed: 1) Current socioeconomic factors (occupational grade before retirement, spouse's occupational situation, household income, household wealth, feeling of financial security, marital status); 2) Past socioeconomic factors (occupational grade at entry to the company, educational level, father's occupational grade, number of financial difficulties in childhood, height); 3) Health-related factors (mental health (CESD), number of pathologies). Univariate and multivariate analysis (linear regression) had been used to study relationships between SSP and determinants (by using R<sup>2</sup> or "percentage of explained variance"). Results had been adjusted for age and gender.

**RESULTS:** The univariate part indicated that all determinants analysed were significantly associated with SSP. Determinants explaining the greatest percentage of variance were: occupational grade before retirement (21.9%) and household income (19.4%), followed by educational level (13.7%), occupational grade at entry (13.6%), household wealth (12.7%) and feeling of financial security (11.1%). The global model including all socioeconomic and health-related factors led to 33.7% of explained variance in the ladder. All determinants, excepted marital status and number of pathologies, remained significantly associated with SSP. Resulted also showed that the six strongest predictors of SSP were in decreasing order: Occupational grade before retirement, Feeling of financial security, Household income, Household wealth, Occupational grade at entry to the company, Number of financial difficulties in childhood.

**CONCLUSION :** Our study showed that people use mainly current and past socioeconomic criteria to assign themselves SSP.

## **La position sociale subjective est-elle un bon prédicteur de santé perçue physique et mentale (SF-36) chez les retraités de la cohorte GAZEL ?**

C Ribet<sup>a</sup>, A Gueguen<sup>b</sup>, M Melchior<sup>b</sup>, A Singh-Manoux<sup>b</sup>, M Zins<sup>a</sup>, M Goldberg<sup>b</sup>

<sup>a</sup> CETAF-RPPC, INSERM U687, Villejuif, France

<sup>b</sup> INSERM, U687, Université Paris XI, IFR69, Villejuif, France

**Objectif.** - De récentes études ont utilisé une mesure subjective de la position sociale (perception qu'un individu a de sa place dans la hiérarchie sociale), et ont observé qu'elle était un prédicteur de la santé plus puissant que les indicateurs usuels de la position sociale. Notre objectif était d'étudier si la position sociale subjective (PSS) était un meilleur prédicteur de la santé que des indicateurs socio-économiques (SE) objectifs parmi des hommes et des femmes retraités.

**Méthode.** - Les données étaient issues de la cohorte Gazel composée de 20624 volontaires, employés d'EdF-GdF et suivis depuis 1989. La PSS a été mesurée en 2004 par une échelle sur laquelle les individus doivent cocher un échelon (parmi 10) représentant la position qu'ils pensent avoir dans la société. Les liens entre la PSS et les scores composites physique (PCS) et mental (MCS) du SF-36 (mesurés en 2007 ; dichotomisés au tertile inférieur), ont été étudiés parmi 8984 hommes et femmes âgés de 50-65 ans retraités en 2004. Des régressions logistiques modélisant le risque d'être en mauvaise santé en fonction de l'échelle sociale (en continue) ont été effectuées (avec ajustement sur l'âge et le genre).

**Résultats.** - La PSS était significativement associée au PCS :  $OR_{PCS}=1,17$  (1,13-1,21), et au MCS :  $OR_{MCS}=1,19$  (1,15-1,23). Après ajustement sur les indicateurs SE objectifs (grades professionnels à l'entrée dans la compagnie et avant la retraite, richesse et revenus du ménage), l'OR pour le PCS était diminué :  $OR_{PCS}=1,11$  (1,06-1,16), alors que l'association avec le MCS était très peu modifiée :  $OR_{MCS}=1,18$  (1,13-1,23).

**Conclusion.** - La PSS semble un meilleur prédicteur de la santé que des indicateurs objectifs de la position sociale, du fait sa composition SE multifactorielle. De plus, des analyses complémentaires ont montré que la confiance en la situation financière à venir paraît être un facteur de confusion pour la relation PSS – Santé perçue (ajustée sur les indicateurs SE objectifs).