Reviewer's report

Title: Physicians' perceptions of quality of care, professional autonomy, and job satisfaction in Canada, Norway, and the United States

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Reviewer: F Anagnostopoulos

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This cross-national study aims to examine differences and commonalities among physicians in Canada, Norway and the US, in their perceptions of quality of patient care, professional autonomy, and job satisfaction. The main results suggest that any differences found may be explained by variability in health care system financing and delivery.

The topic is interesting and the study has its own strengths (e.g., it is based on large sample sizes). Yet, I have some points to make which I hope that the authors will find of help.

Major Compulsory Revisions

Introduction

1) In the introduction, the authors need to present a brief critical review of the literature on the role of age, gender, medical specialty, hours in direct patient care, etc in shaping physicians’ job satisfaction, autonomy, and quality of care. The selection of certain predictor variables (and the exclusion of others, such as practice size) should be justified.

2) The authors should provide a set of specific research hypotheses together with the rationale for each hypothesis.

Methods

3) The authors state that different methods of data collection were used between the three countries (e.g., postal survey, computer-assisted telephone interviews). The impact of this factor on outcome variables (e.g., job satisfaction reported) should be presented in the Discussion section.

4) Details regarding validity of key measures should be reported. For example, regarding item “I have the freedom to make clinical decisions that meet my patients’ needs”, the authors should present other studies that have established construct validity of such single-item measures of physicians’ professional autonomy.

Results

5) In the Results section, in order for a multivariate model (e.g., multiple regression model) to be appropriate, it is important for the authors to confirm that the assumptions of normality, linearity and homogeneity of variance are met.
Moreover, locating outliers and identifying unusual observations is important, since such cases may have a significant impact on the slope of the regression line and on the results of analysis. Regarding collinearity diagnostics for regression analyses, the authors should examine presenting indicators such as the tolerance of the variables and the variance inflation factor (VIF), for each regression analysis performed. Multicollinearity may result in quite unreliable coefficients that may differ markedly from sample to sample, while the signs of the coefficients may be counterintuitive, and the variances of the estimates may be inflated. Thus, the authors should report results on possible violation of assumptions.

6) Regarding Table 3, the authors should justify the presentation of both univariate and multivariate results (and not only the latter).

7) In Table 3, 95% CIs are presented. These intervals refer to unstandardized regression coefficients (B), provided by SPSS-15, and not to standardized ones (betas). Thus, the authors should consider presenting Bs as well, together with their SE.

8) Regarding Table 3, predictors were entered in a hierarchical fashion (blocks), where three steps were conducted: the demographic variables (age, gender) were entered in the first step, “hours in direct patient care” was entered afterwards, while physicians’ country of origin was entered in the third step. In this way, the authors could identify the significant predictors of “freedom of clinical decisions” (or quality of care/adequate time) by controlling for the effects of demographic and other variables on the dependent variable. However, “country of origin” should precede “hours in direct patient care”, if authors were interested in examining the association between direct patient care and freedom for decisions, after controlling for the effects of country of origin (and not vice versa). The order of entering independent variables in hierarchical multiple regression models does matter (except for the limiting case where all correlations among the independent variables are zero), affecting the amount of variation attributed to each block of variables, as well as the statistical significance of the related F-test (obtained from ANOVA). Thus I suggest that authors re-run their analysis with country of origin being entered in Block 1, and direct patient care in Block 3. Analogous attention should be paid to results presented in Table 4, where the order of entering predictors into the equations (Blocks 2-4) is of great importance.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests