

## The new generation of family physicians – career motivation, life goals and work-life balance

We general practitioners (GPs) are often studied by psychologists, psychiatrists, anthropologists or sociologists. Thereafter we are told what qualities we have or lack and what should be done to alleviate our shortcomings. Frequently, physicians of other specialties plan studies and conclude by asking the GPs to motivate patients treated by the latter to take part in the project. Sometimes study groups invite GPs to join the steering committee as a form token whilst not wanting them to meddle intellectually with the project.

I would like to emphasise that GPs should be actively involved in any study and that GP representatives should be included in the study committee and consulted on the design and implementation of projects as well as in the interpretation of the results.

In addition to my political criticism, I might point to certain intellectual deficits in the paper by Buddeberg et al. [1]. Future GPs score less on the tested items of the career success scale than their counterparts in other specialties. One should remember that in Switzerland there are to date only three leading academic positions in family medicine. So why strive for an academic career when there is little possibility of achieving one?

The authors comment that future GPs have less intrinsic or extrinsic career motivation than others. This finding was first published in the earlier work of Buddeberg in this journal [2]. In that publication, the authors defined only the aspirants to general medicine as GPs. In the 2008 publication, those specialising in general internal medicine were merged into the GP group. For the multivariate statistics, the authors gave an F-value of 3.46 (df 8,423) and a partial  $e^2$  of 0.06. The 'eta square' value means that from the independent variable (ie becoming a GP or not) to the dependent (eg extrinsic or intrinsic career motivation) a proportion of 6% is explained and the remaining difference of 94% is due to other factors. In contrast to this poor (although highly significant) statistical relationship, the authors found an excellent correlation of those career factors when analysing future GPs separately according to their gender: F 2.18 (df 8, 33), and  $e^2$  0.35; hence with a p-value of 0.06. It missed statistical significance because of the small group size. This means that under the GPs, 35% of the variability in career factors was explained by being male or female! The 2008 paper lacks the information on eta values and offers no subgroup analysis within the GPs. However, I believe the figures to be similar.

The authors state that their observations on the career related factors scale are valid for female as well as male GPs. If my presumption is true, the observed differences between GPs and other specialisations could be largely attributed to the gender of the physicians. The authors performed a multivariate model of analysis of variance (ANOVA) that helps to detect significant influences of any of the class variables on any of the test scale variables included in the model. Further, they performed an analysis of covariance. In this type of the above mentioned multiple ANOVA model, a linear influence of a covariate is supposed to affect all observations evenly, irrespective of their group classification. As a result in this study, the covariate should help to filter out gender-driven influences on the effect of the class variable on the psychological test scales. This will not rule out an influence of gender within the much smaller group of GPs. I would strongly suggest the authors run a multivariate model by using "type of specialisation" and "gender" as class variables and to include their interaction. Alternatively one could do the analysis for both genders separately. My thesis is further corroborated by fig. 3 of the 2008 publication, which demonstrates impressive gender differences in the career orientation item of the work-life scale.

I am confident that the authors describe an epiphenomenon of women choosing to become GPs because of their biological needs and not a personality trait of GPs, irrespective of their gender.

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### References

- 1 Buddeberg-Fischer B, Stamm M, Buddeberg C, Klaghofer R. The new generation of family physicians – career motivation, life goals and work-life balance. *Swiss Med Wkly*. 2008;138(21-22):305-12.
- 2 Buddeberg-Fischer B, Klaghofer R, Stamm M, Marty F, Dreiding P, Zoller M, Buddeberg C. Primary care in Switzerland – no longer attractive for young physicians? *Swiss Med Wkly*. 2006;136:414-24.

### Authors' reply:

We appreciate the comments of Markus Gnädinger on our two studies. In the 2006 study, only future family physicians (angestrebter Facharztstitel Allgemeinmedizin) were included (n = 42). This study addressed the development of the specialty choice in young physicians during their postgraduate training as part of the Swiss Physicians' Career Development Study [1]. In the 2008 study, future family physicians (n = 50, including 84% of the 2006 sample) as well as physicians specializing in general internal medicine aiming to work as family physicians (n = 34) were included in the analyses. The 2008 study investigated career related characteristics of future family physicians [2].

It is true that there are gender specific differences in the sample of future family physicians in regard to career related factors (such as career motivation). Even when the gender differences are considered, there is an independent significant effect concerning the career related factors between family physicians and other specialists (analysis of covariance, tab. 5 in the 2006 paper, tab. 3 in the 2008 paper), seen in both studies (in the 2006, and even more clearly in the 2008 study). A direct comparison of the statistical values in terms of differences between male and female physicians and between family physicians and other specialists respectively is not appropriate because of the different sample sizes. Such comparisons can lead to misleading interpretations of results.

Markus Gnädinger interprets the results of the two studies in terms of an "epiphenomenon of women, choosing to become GPs because of their biological needs". Considering the results of the two studies as well as the actual discussion on gender issues in medicine and the increasing feminization of the medical profession, this argumentation of biological reductionism does not seem to be adequate.

**To sum up: There is a significant difference between family physicians and other specialists in regard to career related factors that exceeds the gender effect.** Even taking the use of further sophisticated statistical procedures into account, the study results criticized by Markus Gnädinger concerning the future generation of family physicians cannot be dismissed.

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