

Sex and Gender in Cardiology

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1 Background

Gender medicine is currently everywhere in medical publications, both as a field of its own right and as a perspective for studies. Guidelines exist, but some points are unclear. This review tried to take cardiology into particular consideration but publications from outside had to be included to present an overview.

In medicine, sex is determined at birth and remains constant by definition; sex changes are occasionally considered for studies, but the former gender is still used as the basis for appraisal[1].

To people brought up in most societies, the categories “man” and “woman” appear quite unambiguous. However, further study reveals that transvestitism (wearing insignia associated with the other gender), transgender (enacting the other gender), and transsexual (changing the own body to characteristics of the other sex) behaviour is known and more or less openly exercised. Sex and gender are perceived as identical and natural invariants, however transgressions have always been known. Furthermore, biological sex can also be discursively deconstructed and different theories have prevailed in history (e. g. Galen’s one sex theory vs a modern dichotomous discrimination)[2].

From a cultural studies’ perspective, a person’s gender is an interactive enactment of social behaviour; any gender differences stem from socialisation as one of two genders and successive interactive manifestation. This enactment is reflective: it is equally important to act male/female and to recognize the other person(s) as male/female (from studies with transsexuals, it has been determined that it is more shameful to be seen as no gender at all than as the wrong gender, which provides a plausible explanation why transgender is relatively common, while people without gender virtually don’t exist[3]).

In theory, a gender perspective should be applied to most all fields of evidence based medicine (EBM). In studies a distinction should be made between “sex differences” (SD) dependent on the biological gender of the patients (male/female) and “gender differences” (GD) dependent on the social gender (often described as masculine/feminine). However, if the influence of social gender is not clear, it has been established as good practice to label such studies with “gender” rather than “sex” or an intermediate. Therefore in practice now many studies purvey a “gender medicine” perspective, however the extent of the social vs biological influence is often left unclear, since EBM relies on the positivistic approach of the medical field and reflective social manifestation is hard to measure[4]. However, external measurements from other sciences have frequently been used as dependent and independent variables for medical studies, e. g. socioeconomic status (SES). Guidelines detailing the use of terms and approach have been published at Monash University, Australia[5].

To evaluate the current practice with respect to the discrimination of SD vs GD, three publications were evaluated.

2 Results

The first study analyzed is an evaluation of the *Coronary Artery (Disease) Risk Development in (Young) Adults (CARDIA)* study evaluating a possible connection between SES and pulmonary function. Gender was evaluated as an independent variable, whereas SES was taken into account as an independent surrogate parameter as, to quote, “Factors contributing to poor pulmonary function have not yet been elucidated fully.” Significant differences for both independents were shown, pulmonary status for women only increased at a higher SES than for men[5].

Lori Mosca’s Evidence-Based Guidelines for Cardiovascular Disease Prevention in Women[6] have detailed EBM data on risk assessment and parameters, however social and psychological parameters have hardly been taken into account with the notable exception of depression. This is not astonishing, as the report is based on physiological studies; however, it leaves the question of sex vs gender differences (or recommendations, in this case) wide open.

Because it is indexed with the term “gender mainstreaming” I also included a diploma thesis from the Medical University of Vienna. Verena Altmann’s work deals with sorting drinkers into four categories, stating that “women were significant[ly] more often assigned to type III (‘model of depression’, men type IV (‘cerebral damage’), however, no explanation is proposed, although other studies come to similar conclusions. Further studies (or further analysis of the data collected) are however recommended on the final page[7].

3 Conclusions

The use of the term *gender* for both the social and the combined social/biological meanings in gender medicine leads to the expected confusion. Unfortunately, the recommendations have no differentiation term for the conglomerate, either[5]. Therefore, in conscious or inadvertent use of these guidelines, usually biological sex is taken as the invariant, while outcome is labelled in terms of gender difference. Further studies upon the effects of reflective gender interaction patterns on medical parameters is therefore recommended. Factors like different time management, education and access to health care within and between genders might have to be taken into account.

4 Bibliography

Literatur

1. **New, G/Timmins, KL/Duffy, SJ/Tran, BT/O'Brien, RC/Harper, RW/Meredith, IT:** Long-term estrogen therapy improves vascular function in male to female transsexuals. *J Am Coll Cardiol*, 29 Jun 1997, Nr. 7, 1437–44
2. **Laqueur, Thomas:** *Making Sex. Body and Gender from the Greeks to Freud.* Cambridge, MA: Harvard University Press, 1984, ISBN 3251000632
3. **Hirschauer, Stefan:** Die soziale Konstruktion von Geschlechtszugehörigkeit. In *Die soziale Konstruktion der Transsexualität.* Frankfurt am Main: Suhrkamp-Verlag, 1999
4. **Nobelius, Ann-Maree/Wainer, Jo:** *Gender and Medicine. a conceptual guide for medical educators.* School of Rural Health, Faculty of Medicine, Nursing and Health Sciences, Monash University, Australia, 2004 [URL: http://med.monash.edu.au/gendermed/](http://med.monash.edu.au/gendermed/), ISBN 1 920797 06 8
5. **Jackson, B/Kubzansky, LD/Cohen, S/Weiss, S/Wright, RJ:** A matter of life and breath: childhood socioeconomic status is related to young adult pulmonary function in the CARDIA study. *Int J Epidemiol.* 33 Apr 2004, Nr. 2, 271–8
6. **Mosca, L./C. L. Banka, E. J. Benjamin/K. Berra, C. Bushnell/R. J. Dolor, T. G. Ganiats/A. S. Gomes, H. L. Gornik/C. Gracia, M. Gulati/C. K. Haan, D. R. Judelson/N. Keenan, E. Kelepouris/E. D. Michos, L. K. Newby/S. Oparil, P. Ouyang/M. C. Oz, D. Petitti/V. W. Pinn, R. F. Redberg/R. Scott, K. Sherif/S. C. Smith, Jr/G. Sopko, R. H. Steinhorn/N. J. Stone, K. A. Taubert/B. A. Todd, E. Urbina/Wenger, N. K.:** Evidence-based guidelines for cardiovascular disease prevention in women: 2007 update. *J Am Coll Cardiol*, 49 2007, Nr. 11, 1130–50
7. **Altmann, Verena:** *Geschlechtsrelevante Merkmale Alkoholabhängiger in Bezug auf die einzelnen Items der Typologie nach Lesch.* Medizinische Universität Wien, 2006