
**IEA technical committee on Gender and Work**

**OBJECTIVES**

Given the goals of IEA¹, a technical committee on work and gender is proposed with the following objectives:

- to advance understanding of the interactions between gender, sex and the science and practice of ergonomics
- to advance understanding of gender issues in the context of work, in relation to the science and practice of ergonomics
- to enhance the contribution of the science and practice of ergonomics to equal access of men and women to economic, physical and psychological well-being

**RATIONALE FOR THIS PROPOSAL**

**Gender differences and ergonomics**

A number of differences between men and women are relevant to the science and practice of ergonomics. Many of these differences can be classed in one of four domains: (1) exposures (e.g., gendered exposures due to the sexual division of job and task assignments or to gender differences in work methods); (2) outcomes (e.g., gender differences in health effects or apparent health effects due to biological specificities, illness behaviour, social context, choice of indicators etc.); (3) work capacity (for example, training adapted to women's and men's physical characteristics and social situation, gendered definitions of skills); and (4) gendered interactions between work and family/social life.

Gender differences are relevant to the science and practice of ergonomics because:


¹ To advance the science and practice of ergonomics at an international level; to enhance the contribution of the ergonomics discipline to global society
• Even when men and women occupy the same job title, their work activity often differs (Messing et al. 1994; Josephson et al. 1999; Karlqvist et al. 2002).

• Even when men and women occupy the same job title with the same responsibilities, work methods may differ (Lortie 1987; Dahlberg et al. 2004).

• Even when men and women occupy the same job title with the same responsibilities, task requirements may differ because of social expectations (e.g., expectations that men will accept hazardous assignments - see Salminen et al. 1997; Kjellberg, 1998; Cru and Dejours 1983).

• Even when men and women occupy the same job title with the same responsibilities, one gender may experience more gender-based discrimination, harassment or intimidation at work (Messing et al. 2006; Lippel 1999).

• Even when men and women occupy the same job title with the same responsibilities, task requirements may differ because of interactions between worksite design and individual anthropometric characteristics, which differ, on the average, between genders (Stetson et al. 1992; Stevenson et al. 1996; Punnett and Bergqvist 1999).

• Even when men and women occupy the same job title with the same responsibilities, task requirements may differ because of interactions with different extra-professional responsibilities (e.g., work schedule variation interacting with child care provision - see Prévost and Messing 2001).

• Opportunities for professional development and training may vary by gender, due to gender-biased views of human capacities (Teiger and Bernier 1992; Teiger 2006), to gender-specific situations at work (Chatigny 1999, 2001) or to gender-associated views of the importance of career advancement.

• Health effects of work may be recognized and expressed more easily in one gender or the other because of social representations (Lippel 1999, Kjellberg, 1998).

• Even when men and women occupy the same job title with similar responsibilities, effects on health may differ over both short and long terms (Hooftman et al. 2004, 2005, Marcelin et al., 1978) and produce “differential aging effects” or even selection out of the workforce (Teiger, 1989, Molinié, 2005).

Some consequences for scientific studies are:

• In population-based studies, the same expression ("repetitive work", "prolonged standing") can in fact refer to different physical constraints in the workplace; for example, repetitive work for men is more likely to involve lifting heavy weights for short periods of time with rest periods while women are more often exposed to lifting much lighter weights on a continuous basis; prolonged standing is likely to be less mobile among women (Vézina et al. 1995; Tissot et al. 2005); differential effects on health may result.

• In population-based studies, the same physical exposures may be associated with different psychosocial exposures for women compared to men (Josephson et al. 1999); these must be taken into account.
In studies based on compensation data, one gender may be under-represented in relation to the true level of work-related accidents and illnesses (Lippel, 1999); thus, accident analysis needs to take into account differences in hours worked, likelihood of reporting, job assignments, type of employment contract, etc.

Due to exposure differences, the age profile of work-related accidents and illnesses differs by gender (Torgen and Kilbom 2000).

Due to physiological differences between women and men, the same health symptom may be associated with different sets of risk factors (e.g. perimenstrual vs non-perimenstrual back pain among hospital workers - see Borges 2003); this may lead to reduced associations between risk factors and health outcomes if those other factors are not considered.

The same risk factors may be associated with different outcomes for each gender (Punnett and Herbert 2000); it is important to understand the different mechanisms involved and how the mechanisms may relate to outcomes among men and women.

Methodologies for data analysis may need to be revised to take gender into account (Messing et al. 2003).

Methodologies that take gender into account may have to be improved (Messing and Stellman, 2006).

Ergonomic standards and guidelines should be evaluated from a gender viewpoint before their introduction in the workplace (Messing 2004).

Some consequences for interventions are:

- Ergonomists may in some situations have to interview or survey men and women separately to find out about discriminatory practices that affect task assignments or task performance.
- Ergonomists may have to consider family and other outside responsibilities when planning training programs.
- Ergonomists will need to educate employers and employees about gender-based expectations of job performance, such as demands for excessive strength, bravery and stoicism among men.
- Ergonomists will need to consider the effects of their interventions on gender equality in the workplace.
- It is possible that interventions and training in workplaces where women are in a majority may require approaches or styles that are less welcome in workplaces primarily occupied by men.

**Women's work and ergonomics**

For a long time, much research in ergonomics concentrated on jobs where men were in a majority, such as those involving lifting heavy weights (Messing and Stellman 2006). More recently, ergonomists have become interested in work in the service sector (Falzon et Lapeyrière 1998; Caroly 2002; Cerf et Falzon, 2005) and office ergonomics has become a major area of intervention for ergonomists (Carayon 1993). Still,
even when research has concerned women workers, the fact that they were women often did not appear in research reports, and therefore important research questions were not asked about them (Teiger 2006). Even now, a substantial number of research publications do not identify the gender of the workers included (Niedhammer et al. 2000; Messing and Stellman 2006). When this happens, the need for interventions in women's work remains invisible. In Québec for example, women are underrepresented in research (Messing 2002), in groups given a high priority for intervention and in sectors where workplaces are regularly inspected (Messing and Boutin 1997).

Discrimination against women still exists in the workplace, in many countries and women's access to qualified positions is often restricted (Bond et al. 2004). Women are still more often exposed to sexual harassment and intimidation in the workplace (Arcand et al. 2000; Paoli and Merllié 2003). Women's level of decision autonomy in the workplace is lower than men's (Bourbonnais et al. 2000; Hall 1989).

In most countries, women are over-represented in the informal sector and in domestic tasks (Acevedo 2002). These tasks have rarely been studied from an ergonomics point of view, although some research exists (Doniol-Shaw 1983; Habib et al. in press).

Women's specific biology can result in problems at work. Little research or intervention has been done on how to adjust a work station to women who experience pregnancy-induced changes (but see Paul 1993; Paul et al. 1994). Also, relatively little is known on the relationship between perimenstrual symptoms and working conditions.

Women's body segments are, on the average, smaller than men's and their type and degree of physical strength also differs on the average (Fothergill et al. 1991;1996). When women enter professions previously reserved for men, tools, equipment and workspaces need to be adapted. Research and interventions are needed in this area.

Thus, there is a need to study the types of tasks assigned to women and men and the risks specific to women and men at work.

WORK PLAN OF THE TECHNICAL COMMITTEE

1. Identify and suggest priorities for actions by IEA
2. Prepare and encourage relevant workshops, symposia and presentations at the meetings of IEA and national ergonomics societies
3. Encourage and mentor emerging ergonomists and researchers in the best possible methodologies for rigorous gender-sensitive ergonomics
4. Issue a triennial call for research in specific areas, in order to identify needs for research on gender and ergonomics or on ergonomics in women's work
5. Issue a triennial list of needed interventions in the relevant areas
6. Establish a list of data sources and relevant publications on “gender at work” and “women's work” accessible by internet
BIBLIOGRAPHY


