

INTRODUCTION TO PAKSI VERONIKA PHD DISSERTATION

■ The **goal** of the present research was to explore the work-life balance (WLB) of young female engineers during their PhD studies. Obstacles to WLB in high-status occupations can be magnified in the male-dominated STEM (science, technology, engineering, and mathematics) fields, where women are significantly underrepresented. While women and different societal actors invest significant capitals into women's education – and also an insufficient supply of high-skilled labour force –, women often are dissuaded from a career in science, particularly after obtaining PhD; not only in the USA and the EU member states but even in the more gender-equal Nordic countries. I **propose** in this dissertation that young women researchers in STEM fields face severe work-life balance-related obstacles even as early as their PhD education due to the intersection of their gender, age, parental status, nationality, and also the characteristics of their strongly male-dominated, knowledge-intensive occupation, particularly if it involves laboratory work with hazardous substances.

■ The research is embedded into a **dual theoretical framework**. While WLB theories help to understand the relationship of school, work and family life, the life course approach highlights how the critical intersection of individual and academic life courses affects WLB, especially the timing of childbearing. The research is based on a qualitative research design; 27 semi-structured **interviews** were conducted with female PhD students in engineering in Hungary. Two main **research questions** and three sub-questions were raised: 1) What dilemmas do female PhD engineering students face when trying to create a WLB? 2) Which strategies do female PhD engineering students (want to) apply to achieve WLB? ♦ What main factors do female PhD engineering students identify that constrain and /or facilitate their WLB? ♦ How do studying and working in engineering influence the WLB of female PhD students? ♦ How do institutional and normative contexts shape the family plans of female PhD students in engineering, especially their timing of motherhood?

■ **Results** show that ♦ The vast majority of female PhD students in this sample were engaged in multiple roles: education, work, private and family life, which severely challenged their WLB. Their main concerns and dilemmas were when to integrate motherhood into an academic career and how to balance their life. ♦ PhD students were socialising in the greedy organisations of both the productivity-based neoliberal academia and the private sector. They carried heavy workloads and were further pressured by the knowledge intensity of engineering profession. Women, particularly mothers, were also solely responsible for caring and household tasks at home; therefore, they failed to follow the dominant male engineer career model – long working days without days off, even at the weekends –, which was associated with the image of the “ideal, good researcher” and a successful career. ♦ Interviewees frequently encountered time- and strain-based work-to-family conflicts: time-squeeze, tiredness, exhaustion, stress, strain, bad mood, insomnia and negative spillovers. They sought support from their families but lacked well-developed coping strategies. They rather used different practices to facilitate

their WLB with greater or lesser success: adequate scheduling, segmentation of life domains, and communication of the boundaries between work and private life. Flexible working arrangements seemed to be a double-edged sword: it enhanced and hindered their WLB at the same time. ♦ The vast majority of the PhD students perceived different labour market-based uncertainties – extremely short fixed-term contracts, low income and gender-based discrimination, particularly that of mothers –, which resulted in an imbalance of work and family life. ♦ The inflexibility and health hazards of laboratory work particularly hindered the timing of childbearing during their academic career. ♦ Engineer women reported a bunch of negative experiences from their male-dominated learning and working environments that hindered their WLB and family plans: the masculine view of science, devaluation of their knowledge, unfair and humiliating treatment, isolation. Assimilation strategy was more often applied than those of humour and sensitisation. ♦ These women more than once delayed motherhood. Their most significant dilemma was based on the tension between the defining social norms, their biological clock and the perceived feasibility of their family plans. Women could not call any ideal period for childbearing in their profession; therefore, they named the period of dissertation writing the “least bad option”.

■ **Research findings highlight** the Hungarian case, nuance international research findings and offer intervention points to stakeholders. Results can enhance the WLB of young researchers and may contribute to the elimination of barriers to women’s professional advancement and to the increase of the proportion of women in STEM fields.