

The Role of Educational Choices in Support of Gender Equality in Unpaid Domestic Work: A Case Study of Psychology and STEM Students in Slovakia*

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Abstract: The present paper investigates female and male students' perceptions of descriptive and prescriptive gender norms in Slovakia and their expectations of and preferences for unpaid domestic work in the students' future family lives. We explore the Slovak subset of the 'Understanding Communal Orientation in Men' (UCOM) project, which aims to better understand the social-psychological factors associated with students' interest in taking care-oriented roles and occupations. Data were collected at several universities across Slovakia in 2018 at psychology (as an example of the HEED field of study) and STEM departments traditionally dominated by female and male students, respectively. Our final sample consisted of 129 psychology students (106 females) and 124 STEM students (39 females). The results point to differences between female and male students' perceptions of gender norms regarding unpaid domestic work, with male students reporting both descriptive and prescriptive norms as being more equal than what female students note. Interestingly, the men and women agreed in their preferences and expectations of how unpaid work should and will be distributed in their future family lives. Regardless of biological sex, the students wanted—and expected—women to take on more of unpaid work, indicating that the decision to study does not foster the desire for gender equality in either female or male students. Next, we explored the associations between the decision to study traditionally gender-incongruent majors and our dependent variables. Because of the limitations of the sample and country-specific conditions, we can only cautiously suggest that the gender-incongruent major choices may become a meaningful indicator of the changing dynamics in how gendered roles and norms are understood in society.

Keywords: Educational gender gap, educational choices, gender norms, unpaid domestic work, gender equality

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Introduction

Equal access to education, including tertiary education, is believed to be a key factor in promoting gender equality and changing gender norms and stereotypes. The United Nations hopes that higher education can empower women both politically and economically, make women's voices heard across all social spheres and contribute to the more equal division of family roles, including the ability to sustain dual careers and share family responsibilities. In a recent report, UNESCO acknowledged that, globally, the gender gap in higher education has reversed, with 54% of students now being women (Bothwell, 2022). According to OECD data, the proportion of Slovak men and women aged 25–34 years old with tertiary education was nearly equal in 1998, reaching approximately 10% (Encinas-Martíni & Cherian, 2023). In line with global trends, however, after the year 2000, women started to outperform men. Currently, 51.2% of women in this age cohort have higher education compared with only 28.2% of men, and in the general population, 24% of women and 19% of men aged 15 and older have higher education (compared with 27% and 26%, respectively, in the EU).

Nevertheless, the data indicate that the progress towards political and economic gender equality and the balance between paid and unpaid domestic work is slower than the pace at which the educational gender gap has closed. Moreover, inequalities persist within the educational systems themselves, resulting in a humanities bias or gendered segregation in fields of study (Bothwell, 2022). Globally, only 30% of students graduating from STEM are women, and the field tends to be stereotyped as a domain in which women can hardly excel (Makarova et al., 2019). In contrast, in the EU, 43% of women intend to graduate from education; health and welfare; humanities; and arts, whereas 21% of men intend to do so. In Slovakia, the humanities bias is even more pronounced: 51% of female students, compared with 26% of male students, undertake education; health and welfare; humanities; and arts as their majors (EIGE, 2022). Therefore, despite the gender gap being reversed, gendered educational patterns, along with stereotypical views of gender roles, may linger. By sorting students into future occupations, the biases could reach beyond academia, contributing to labour market segregation and a gender wage gap (Block et al., 2019) or gender inequality at home (Saxler et al., 2024). These aversive consequences may arise because the HEED and STEM occupations are associated with different rewards in the labour market, with STEM occupations being systematically better paid. Hence, the humanities bias may be associated with the petrification of the stereotypical perception of gender roles because it is believed that partners with less-demanding and lower-paid jobs should take on more childcare and household chores (Akerlof & Kranton, 2010; Becker, 1985). This calls into question whether the mere reversal of the educational gender gap could serve as an indicator of attenuating the stereotypical perceptions of gender roles, leading to an increasing level of gender equality. Thus, we investigated female and male students' perceptions of descriptive and prescriptive gender norms in Slovakia and their expectations of

and preferences for the division of unpaid work in students' future family life. In addition, we explored whether gender-incongruent choices could be indicative of a changing understanding of gender roles and norms.

Literature review

Gendered division of household chores and childcare

Compared with men, women tend to spend more time at home with their newborn children and perform more tasks related to cleaning, cooking and caring (Klímová Chaloupková, 2018; Miller & Borgida, 2016; Olsson et al., 2023; Rudman et al., 2012; Rudman & Mescher, 2013). However, contrary to the standard economic expectations regarding women's comparative advantage in caregiving, this unequal division persists even among couples in which women earn more or are the sole earners. Generally, the gap between household chores and childcare is wider than the gap in earnings (Akerlof & Kranton, 2010; Becker, 1985). In addition to the economic consequences, including limited women's career opportunities and the gender wage gap, men's underrepresentation in childcare also results in lower well-being of children and of the men themselves (Meeussen et al., 2020; Olsson et al., 2023). Because the earnings data do not corroborate the comparative advantage hypothesis, the research has focused on other factors that could explain the unequal division of unpaid domestic work in families. The results have unambiguously pointed to gender norms about paid and unpaid work, showing how these are key factors preventing men from greater engagement in family life (Olsson et al., 2023).

Gender norms may have two nonmutually exclusive forms—descriptive and injunctive—that describe the social status quo and normative expectations. Both types of norms also reflect the important aspects of experiencing and appraising the social reality in which young people plan their futures and make decisions about their education trajectories and family lives. Inconsistencies between one's own preferences and socially constructed demands may have far-reaching consequences for the life choices of individuals living in a given society. Gender role theory claims that the internalisation of norms starts in early childhood (Eagly, 1987). As a result of the gendered nature of those norms, boys are socialised to be masculine (instrumental or agentic) and develop traits such as aggression, independence, ambition and rationality. On the other hand, girls are encouraged to be feminine (expressive or communal), warm, caring, emotional and socially oriented (Bem, 1974; Eagly, 1987; Eagly & Karau, 2002; Eagly & Wood, 2012). Descriptive norms reflect the frequency with which one gender is involved in some type of behaviour. In this case, the frequency itself is a consequence of socialisation and social expectations and may lead people to believe that relevant skills and abilities are directly related to biological sex and are immutable (Eagly et al., 2000, 2020). As a result of gendered socialisation, women *take on* more

unpaid work and, thus, are believed to be more competent caregivers—a role that requires strong communal traits—and *are expected* to take on more tasks associated with unpaid domestic work. Men—who are less often seen as primary caregivers—are believed to be incapable of caring activities and are expected to refrain from becoming excessively involved in family life and prioritise what they are best at—their paid careers (Cukrowska-Torzewska & Lovasz, 2020). The perception of descriptive norms about unpaid work may reflect sensitivity to social cues as well as beliefs about the competence of men and women in childcare and household chores. Injunctive norms, in turn, reflect the normative expectations of society; these norms can be further divided into two subtypes and indicate either what behaviour is expected from men and women (prescriptive norms) or discouraged (proscriptive norms). The perception of injunctive norms is associated with beliefs about what one *should* and *must not* do. For example, those men who—despite the gendered expectations—endorse gender equality tend to show greater intentions to take parental leave (Olsson et al., 2023). However, this does not come without a cost: A recent study showed that men may face backlash for being family oriented. Specifically, those men who take more days of leave related to caring for family members or sickness face a heightened risk of being dismissed compared with women leaving to care for family members (Adamus & Ballová Mikušková, 2024). If behaviour that violates gender norms is associated with social punishment, those norms could interfere with an individual's preferences and expectations of future family life and career.

The distinction between expectations and preferences is vital for understanding the gendered division of caring and household chores. Despite living in a society with predominantly conservative views on gender roles, such as Slovakia, it is likely that young people would *prefer* a different division of paid and unpaid work than the one they observe in their everyday lives. However, if they assume that their partners are socialised to endorse the gender norms prevalent in this society and/or are afraid of the backlash of non-normative choices, they may expect that young people will not achieve what they would prefer. Hence, they may adjust their own expectations to the circumstances in which they live. Therefore, the present study investigated the differences between female and male students' perceptions of descriptive and prescriptive gender norms as well as their preferences and expectations for the future division of unpaid domestic work. We explored whether perceptions of descriptive and prescriptive gendered norms in society are associated with students' expectations and preferences for unpaid work (household chores and childcare) in their own family life in the context of gender and educational choices (majors). If closing the gender gap in higher education was associated with more progressive views about gender roles, then we would observe the desire for and expectation of equality in students' future family lives (Objective 1).

Gendered educational choices

Although the data and literature show that education *per se* is an important factor in shaping gender norms and promoting gender equality, the decision to study is not the only driver of views about gender roles and norms associated with the division of unpaid work (Šprocha et al., 2020). Gender role theory posits (Eagly, 1987; Eagly & Karau, 2002) that educational choices themselves are gendered. This theory claims that society values and expects different behaviours from men and women. Therefore, if different behaviours are considered acceptable and desirable for men and women, occupations and fields of study—such as STEM or psychology as examples of HEED fields of study—are not gender neutral either; some fields would then be considered appropriate for women and others consider for men. Indeed, in addition to quantitative data, the literature shows that STEM, particularly math and physics, is a field that is stereotypically viewed as associated with masculinity and manliness (Archer & Freedman, 1989; Cheryan et al., 2015; Dicke et al., 2019; Makarova et al., 2019). Even children as young as kindergarten age imagine and draw scientists as men do (Chambers, 1983), and both students and teachers assign more masculine than feminine traits to a person who is a scientist (Archer et al., 2010; Hand et al., 2017).

Because of persistent gender norms, individuals may refrain from choosing a career that is socially viewed as unsuitable for them for fear of failure or because of potential backlash (Rudman & Glick, 1999, 2001; Rudman & Phelan, 2008). Generally, individuals try to align their behaviour with the norms applicable to their biological sex, and those who internalise the gendered notions associated with some fields are likely to feel discouraged from studying these fields. A recent study by Reisel and Seehuus (2023) suggested that not only are majors gendered but female-type majors are also valued less, discouraging men—who are socially required to prioritise paid careers—from choosing them. Concurrently, girls who hold more traditional beliefs about gender roles in adolescence are more reluctant to choose STEM as their major later, have lower educational attainment and earn less (Dicke et al., 2019). If we understand gender norms as a complex set of beliefs about the roles that men and women play in society, then perhaps not the size of the educational gender gap but rather the ratio of incongruent major choices could serve as an indicator of decreasing support for traditional gender norms, here assuming the unequal division of paid and unpaid work. In other words, those who have already internalised more counterstereotypical beliefs in general may more easily choose incongruent fields of study. Hence, we delved into our data to identify the potential differences between female and male students who chose congruent and incongruent majors (Objective 2).

Methods

Procedure and sample

The data were collected as a part of the 'Understanding Communal Orientation in Men' (UCOM) project. UCOM was launched in 2017 and covered 94 sites in 59 countries, aiming to better understand the social-psychological factors that predict students' interest in taking care-oriented roles and occupations. In accordance with the UCOM project criteria, the sample should be either all students from an undergraduate/bachelor (or similar) psychology major or all students from a balance of different majors, with at least 80 students from a STEM-related major (e.g., engineering, math, chemistry, computer science, physics) and 80 participants from a HEED-related major (e.g., psychology, social work, sociology, nursing, education/teaching, counselling, health professions). The selection criteria set by the international UCOM project coordinators have a twofold justification. First, the HEED and STEM major choices are gendered and, thus, may show associations with the gender norms prevalent in society and/or endorsed by the students. Second, major choices are an important factor for labour market segregation and the gender pay gap. When more women choose to study majors associated with lower-paid HEED jobs, this may contribute to the skewed division of paid and unpaid work in families. This is because partners who earn less often take on more caring and household chores on themselves and more easily resign from or reduce their paid work engagement. Finally, psychology—as an example of a HEED major—was chosen for pragmatic reasons. In many countries, psychology is a widely popular major choice; thus, the potential pool of participants may be sufficient. Additionally, among the HEED majors, psychology has a considerable number of male students, facilitating the ability to obtain responses from males for comparison purposes. The present study was approved by the Ethics Committee of Slovak Academy of Sciences. We report here only the measures that were analysed in the current study (for more information, see variable overview: <https://osf.io/jw8fh/wiki/home/>; or project overview: <https://ucom2017.wordpress.com/>).

The data were collected at universities across Slovakia in 2018. The participants completed an online survey in the Slovak language that took approximately 45 minutes to complete. In accordance with the UCOM registered participation criteria (see OSF: https://osf.io/7psh5/?view_only=a6ef288322884140b788042819d926c9), those participants who completed fewer than 80% of the questions or did not pass at least one of two attention check questions were excluded. We recorded 837 attempts to start the questionnaire in Qualtrics. After quality and completeness checks, 262 studies were included in the final sample. After selection for the major, the final Slovak subsample consisted of 129 psychology students (106 females) and 135 STEM students (39 females). The small deviations from the sample size in some of the analyses were because of missing values deemed acceptable by the UCOM protocol. The STEM participants were of the

following composition of majors: business, mathematics/statistics, computer science and engineering. Both psychology and STEM students were recruited from various universities across Slovakia with the aim of collecting responses from both male and female students.

Measures

Perceptions of descriptive norms about unpaid work

Perceptions of descriptive norms were assessed using two items with an instruction: 'We are interested in your perceptions about how parents in your society handle the division of labour at home. For the following questions, please imagine a family of four living together under one roof. The family consists of a father, a mother, and two children aged 2 and 6 years old. Make ratings of how the family would most likely divide tasks in Slovakia'. 'How much of the childcare (taking care of children, spending time with them and fulfilling their physical and psychological needs) do mothers and/or fathers do, respectively?' 'How much of the unpaid domestic work do mothers and/or fathers do, respectively?' The items were rated on a scale from 0 (*father does all*) to 100 (*mother does all*); subsequently, they were centred; 0 indicates equal division, negative values indicate greater shares of fathers, and positive values indicate greater shares of mothers. The scores were then summed to create composite score of unpaid domestic work (including childcare and household).

Perceptions of prescriptive norms about unpaid work

Perceptions of prescriptive norms were again assessed by two items with an instruction: 'We are interested in your beliefs about others' perceptions of the division of labour at home. For the following questions, please imagine a family of four living together under one roof. The family consists of a father, a mother, and two children aged 2 and 6 years old. Make ratings of how others in Slovakia believe these tasks should be distributed'. 'How much of the childcare (taking care of children, spending time with them and fulfilling their physical and psychological needs) do mothers and/or fathers should do, respectively?' 'How much of the unpaid domestic work do mothers and/or fathers should do, respectively?' The items were rated on a scale from 0 (*father should do all*) to 100 (*mother should do all*); subsequently, they were centred; 0 indicates equal division, negative values indicate greater shares of fathers, and positive values indicate greater shares of mothers. The scores were then summed to create composite score of unpaid domestic work (including childcare and household).

Preferences for the ideal division of unpaid work

Preferences for the ideal division of childcare and household work were assessed by two questions with an instruction: 'We are interested in your own beliefs. For the following questions, please imagine a family of four living together under one roof. The family consists of a father, a mother, and two children aged 6 and 2 years old. Make ratings of how you think these tasks should be distributed'. 'How much of the unpaid domestic work within the household do you think mothers and/or fathers should do, respectively?' 'How much of the childcare (taking care of children, spending time with them and fulfilling their physical and psychological needs) do you think mothers and/or fathers should do, respectively?' The items were rated on a scale from 0 (*fathers should do all*) to 100 (*mothers should do all*); subsequently, they were centred; 0 indicates equal division, negative values indicate greater shares of fathers, and positive values indicate greater shares of mothers. The scores were then summed to create composite score of unpaid domestic work (including childcare and household).

Expectations about the division of unpaid work in future family life

Expectations concerning students' future family life and the division of childcare and household work were assessed by two questions with an instruction: 'We are interested in your own expectations about the division of labour at home in your own future family. For the following questions, please imagine that you have a life partner and child(ren). Make ratings of how you believe these tasks will be distributed as accurately as you can'. 'How much of the unpaid domestic work within the household do you expect you and your partner will do, respectively?' 'How much of the childcare (taking care of children, spending time with them and fulfilling their physical and psychological needs) do you expect you and your partner will do, respectively?' The items were rated on a scale from 0 (*I would do all*) to 100 (*my partner would do all*); subsequently, they were centred; 0 indicates equal division, negative values indicate greater participant's own share, and positive values indicate greater expected partner's share. The scores were then summed to create composite score of unpaid domestic work (including childcare and household).

Educational choices (majors)

Educational choices were coded as a binary variable for either psychology or STEM. Following the UCOM project assumptions, *psychology* is considered a gender-incongruent major choice for men and *STEM* for women.

Results

First, we examined female and male students' perceptions of descriptive and prescriptive gender norms in Slovakia and their expectations of and preferences for unpaid domestic work in students' future family life. All measured variables (DN, PN, PREF, EXP) are centred—variables are calculated by subtracting 50 (mean = totally equal division); thus, positive values indicate greater shares of women/mothers whereas negative values indicate greater shares of men/fathers. We then added scores for household and childcare to obtain a score for *unpaid work* used for further analyses. The descriptive statistics for all the variables are presented in Table 1, and the results of the correlational analysis are presented in Table 2.

As shown in Table 2, being female positively correlated with the perceptions that women are expected to do and actually do more unpaid work. In other words, the participants tended to report that both descriptive and prescriptive

Table 1. Minimum, maximum, mean and standard deviations for all measured and created variables

	N	Minimum	Maximum	M	SD
Descriptive norms_ childcare	262	-30	50	21.98	14.41
Descriptive norms_ household	262	-30	50	20.76	14.38
Descriptive norms_ together	262	-41	100	42.74	24.37
Prescriptive norms_ household	262	-50	50	17.79	17.71
Prescriptive norms_ childcare	262	-45	50	19.66	16.40
Prescriptive norms_ together	262	-68	100	37.46	30.10
PREF_household	261	-40	43	7.22	11.21
PREF_childcare	261	-18	50	6.40	9.08
PREF_spolu	261	-58	80	13.62	17.71
Expected share_ household	254	-50	50	-2.41	15.26
Expected share_ childcare	253	-50	50	0.25	13.51
Expected share_ together	253	-100	100	-2.16	26.14

Table 2. Pearson’s correlation for all measured variables

	1.	2.	3.	4.	5.
1. gender					
2. major	-.513*** (N = 253)				
3. DN unpaid work	.238*** (N = 253)	-.200** (N = 262)			
4. PN unpaid work	.251*** (N = 253)	-.239*** (N = 262)	.175*** (N = 262)		
5. PREF unpaid work	.031 (N = 252)	.018 (N = 261)	.181*** (N = 261)	.167*** (N = 261)	
6. EXP unpaid work	-.381*** (N = 244)	.350*** (N = 253)	-.094 (N = 253)	-.119 (N = 253)	-.151* (N = 253)

Note: *p < .05, **p < .01, ***p < .001. Gender is coded 1 = male, 2 = female. Major is coded 1 = psychology, 3 = STEM. DN – descriptive norms. PN – prescriptive norms. PREF – Preferred share. EXP – expected share.

norms are biased against women. In addition, perceived descriptive norms, prescriptive norms and the preferred distribution of unpaid work were positively correlated. However, the perception of this unequal distribution was also related to the greater preference for this type of unequal distribution.

Correlational analysis was performed on the whole sample; therefore, we report the main analyses comparing men’s and women’s perceptions of descriptive and prescriptive norms as well as the preferred and expected distributions of unpaid work (childcare and household chores) in Table 3.

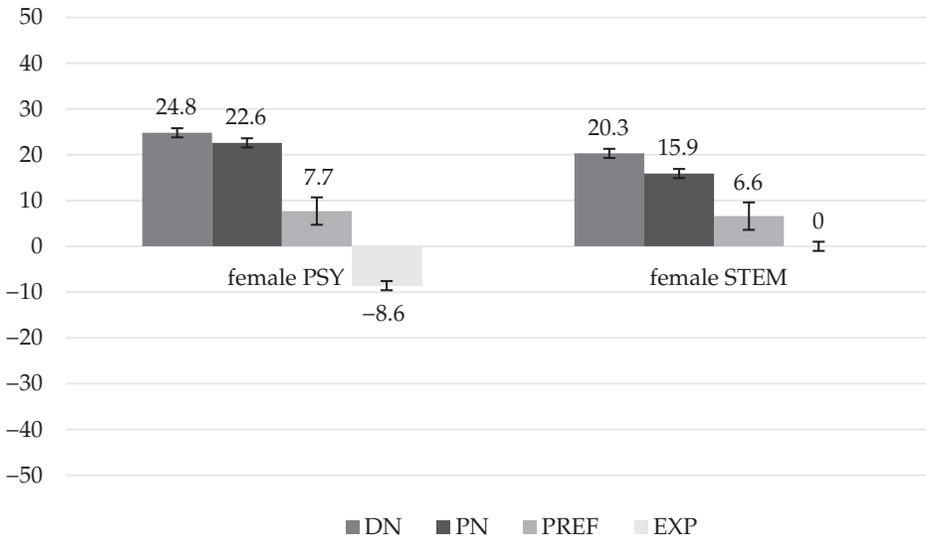
Men and women significantly differed in their perceptions of descriptive and prescriptive norms regarding the division of unpaid work. Although participants reported that women actually do (descriptive norms) and should (prescriptive norms) take on more unpaid work, men tended to perceive this inequality as smaller. Moreover, both men and women indicated that they would prefer the distribution of unpaid work to remain unequal (women are preferred to do more unpaid work). Nevertheless, the ‘ideal’ division in their view should be much closer to equality than how they perceive descriptive and prescriptive norms. Interestingly, the preferences of both the male and female participants were very similar. Finally, even though both men and women preferred that mothers do slightly more, they expected a more equal division of unpaid work than they reported. Although the numbers may suggest otherwise, men’s and women’s expectations about the division of unpaid work in their future family lives were strikingly aligned. Notably, negative values, in this case, indicated that the

Table 3. Comparison of men and women

	gender	N	M	SD	t	p	d	[95% CI]
DN_childcare	male	108	18.78	15.5	-3.08611	0.002	-0.39226	[-0.646, -0.137]
	female	145	24.37	13.21				
DN_household	male	108	17.45	14.3	-3.50181	<.001	-0.44510	[-0.700, -0.188]
	female	145	23.55	13.27				
DN_unpaid work	male	108	36.23	25.4	-3.88603	<.001	-0.49394	[-0.751, -0.235]
	female	145	47.92	22.29				
PN_childcare	male	108	14.96	14.2	-4.31217	<.001	-0.54810	[-0.807, -0.287]
	female	145	23.68	17.2				
PN_household	male	108	14.49	16.3	-2.90846	0.004	-0.36968	[-0.623, -0.115]
	female	145	20.81	17.67				
PN_unpaid work	male	108	29.45	25.9	-4.10271	<.001	-0.52148	[-0.779, -0.262]
	female	145	44.48	30.78				
PREF_childcare	male	107	6.38	10.2	-0.00847	0.993	-0.00108	[-0.251, 0.249]
	female	145	6.39	8.40				
PREF_household	male	107	6.62	12.8	-0.77458	0.439	-0.09872	[-0.349, 0.152]
	female	145	7.72	9.85				
PREF_unpaid work	male	107	13.00	20.8	-0.48854	0.626	-0.06226	[-0.312, 0.188]
	female	145	14.12	15.49				
EXP_childcare	male	103	6.43	11.7	6.47595	<.001	0.83940	[0.559, 1.117]
	female	141	-4.18	13.29				
EXP_household	male	103	3.19	12.8	5.13960	<.001	0.66520	[0.394, 0.933]
	female	142	-6.23	15.11				
EXP_unpaid work	male	103	9.62	21.9	6.41766	<.001	0.83185	[0.552, 1.109]
	female	141	-10.45	25.66				

Note: DN – descriptive norms, PN – prescriptive norms, PREF – preferred share, EXP – expected share.

Figure 1. Unpaid domestic work distribution differences between females in psychology majors and females in STEM majors with confidence interval values



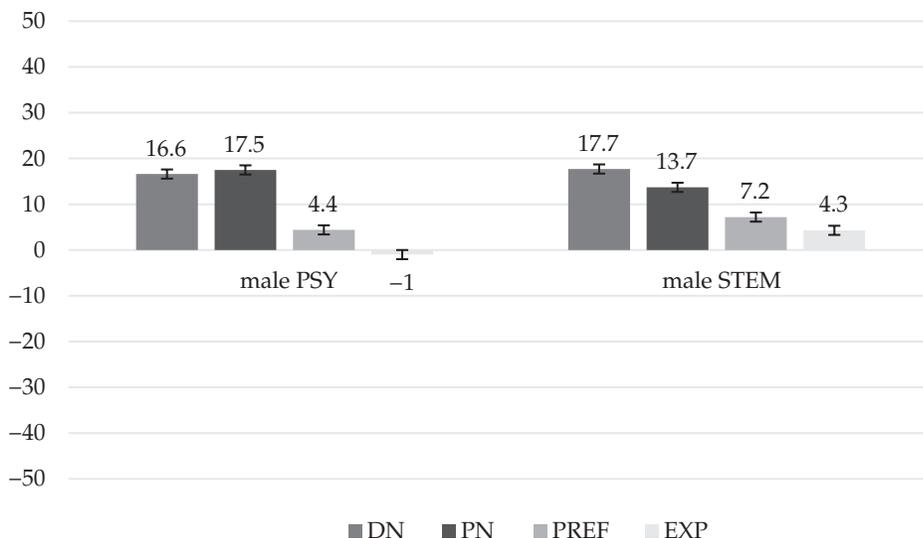
Note: DN – descriptive norm; PN – prescriptive norm; PREF – own preferences; EXP – expected share.
 For DN, PN and PREF, 0 indicates equal division, negative values indicate greater shares of fathers whereas positive values indicate greater shares of mothers and summed.
 For EXP: 0 indicates equal division, negative values indicate greater shares of participants whereas positive values indicate greater shares of expected partners.
 Females in psychology CI values: DN [22.3–27.3]; PN [19.4–25.8]; PREF [5.8–9.6]; EXP [-11.3–5.9]. The STEM CI values of the females were as follows: DN [16.2–24.4]; PN [10.0–21.8]; PREF [4.7–10.7]; and EXP [-4.9–4.9].

participants expected to do more of the unpaid work themselves whereas positive values indicated that they expected their partners to do more. Because the questionnaire asked about heterosexual families, we can see that women expected to do more themselves (negative values), whereas men expected their (female) partners to do more (positive values) in nearly equal proportions (-9.59 vs. 9.49).

As a secondary aim, we explored whether gender-incongruent choices could be indicative of a changing understanding of gender roles and norms.

The findings regarding female perception of the distribution of unpaid domestic work (see Fig. 1) show the decreasing participation of women in direction from descriptive norms to the expected share in one’s own household. The Mann-Whitney U test was applied to analyse the differences between female psychology students and female STEM students. The mean rank differences were signifi-

Figure 2. Differences in the unpaid domestic work distribution between males in psychology majors and males in STEM majors with confidence interval values



Note: DN – descriptive norm; PN – prescriptive norm; PREF – own preferences; EXP – expected share.

For DN, PN and PREF, 0 indicates equal division, negative values indicate greater shares of fathers whereas positive values indicate greater shares of mothers and summed.

For EXP: 0 indicates equal division, negative values indicate greater shares of participants whereas positive values indicate greater shares of expected partners.

Males in psychology CI values: DN [12.1–21.1]; PN [12.1–22.9]; PREF [1.2–7.6]; EXP [1.2–7.6]. The STEM CI values for males were as follows: DN [14.5–20.9]; PN [10.1–17.3]; PREF [4.3–10.1]; and EXP [1.7–7.1].

cant for DN ($U = 1576.5$; $p = .029$), PN ($U = 1565.5$; $p = .025$) and EXP ($U = 1483$; $p = .019$). The expected share of unpaid work was around the equal gender distribution but (still) keeping the higher share of women's shoulders.

A similar 'decreasing' pattern as that for the female sample was observed for the male sample. The findings regarding male perception of the distribution of unpaid domestic work (see Fig. 2) show the decreasing participation of women in direction from descriptive norms to the expected share in one's own household. The Mann-Whitney U test was applied to analyse the differences between male psychology students and male STEM students. The mean rank differences were not significant. The expected share of unpaid work was close to the equal gender distribution, but the higher share of work was still expected to be done by the partner with whom the male respondent would be living.

The findings regarding male perceptions of the distribution of unpaid domestic work show the decreasing participation of women (increasing the participation of men) in the direction of descriptive norms to the expected share in one's own household. The differences in the expected share (EXP) between males with different majors indicated a desire for greater gender equality in domestic work distribution among male psychology students than among male STEM students (see Fig. 2). However, the differences were not statistically significant.

Discussion

The primary aim of the present study was to investigate female and male students' perceptions of descriptive and prescriptive norms regarding the division of unpaid domestic work in Slovak families as well as the students' preferences and expectations about this division in their future family lives. The secondary aim was to explore whether gender-incongruent major choices could be indicative of a changing understanding of gender roles and norms. Although our results need to be interpreted with the utmost caution because of the small sample sizes—which, however, reflect the real-life gender distributions in the two majors—being underpowered if placed in more advanced analyses, the present study signals interesting patterns that deserve further investigation. The findings highlight the differences between female and male students' perceptions of gender norms and between students who chose congruent and incongruent majors (psychology for men and STEM for women). The results indicate that it may not be the mere decision to study—which is relatively common now—but rather that an increasing number of gender-incongruent major choices may be indicators of the desire for greater equality in the division of unpaid domestic work between male and female partners.

Gendered perceptions of prescriptive and descriptive norms

Our results indicate that, regardless of major choices, there is a systematic difference in how the female and male students perceived prescriptive and descriptive gender norms. Male students believed that mothers are expected to do more unpaid domestic work. Nevertheless, compared with female students, mothers' share of unpaid work was lower. The data provided by the Gender Equality Index and Eurobarometer (Cukrowska-Torzewska & Lovasz, 2020) suggest that female students' beliefs—that women perform more household chores and caring activities—may actually be more realistic. Although our dataset does not allow us to explain this pattern, we can speculate that male students' perceptions of more engaged fathers could be associated with the students' early experiences. It is possible that fathers engage or feel more competent in rearing sons. Even if male students' memories and perceptions are biased, there is a constant need to emphasise that fathers' presence at early stages of life is important for both their

daughters' and sons' well-beings and educations. Additionally, it seems important to reliably inform the extent of inequalities in the division of unpaid domestic work to stimulate greater understanding of and desire for equality in the future. If young men consistently underestimate the scope of inequality and the burden of unpaid work left on women's shoulders, it would be difficult to expect them to become vocal about the need for equality.

Expectations about the future division of household work and childcare

Our data show that, although female and male students are aware of the existence of gender descriptive and prescriptive norms, they strive to make their future family lives fairer and try to obtain a more equal division of unpaid domestic work than they observed in society. Regardless of their gender and major, the students generally voiced an expectation that their own family lives could be more balanced than those of their parents and people in contemporary society. Although the results show that current students do not wish to follow and reproduce prescriptive gender norms regulating the division of unpaid work in their own family life, they are far from encouraging. Primarily, it seems that there is still a persistent expectation that women should perform more caring and household chores. The results, however, need to be interpreted within the social context in which the data were collected. According to Eurobarometer data (Cukrowska-Torzewska & Lovasz, 2020), Slovakia is among the most conservative EU countries in terms of gender equality and the social perception of gender roles. Fifty-one percent of Slovaks believe that men are less competent than women in household tasks, and 48% support the view that a father must put his career ahead of looking after young children. Unsurprisingly, in the gender equality subindex time, which measures engagement in household chores and cooking and caring activities, Slovak men score far below the EU average: Slovakia scores 25th among all 27 countries and is ahead of only Greece and Bulgaria. Hence, we cannot forget that both preferences and expectations do not emerge in a void; they are shaped by and renegotiated in opposition to the descriptive and prescriptive norms prevalent in society. Thus, the results concerning the preferred and expected division of unpaid work—compared with the perception of gender norms—may seem to reflect generational changes rather than the effect of tertiary education. Although male students generally prefer their future female partners to take on a greater share of unpaid work, they also seem to understand and come to terms with the fact that gender norms have evolved and that they are expected to participate in unpaid work more. Finally, if we take a closer look at major choices, we can see an interesting pattern. Although the differences in preferences tend to be small, students who choose gender-incongruent majors (psychology for men and STEM for women) expect a more equal division of unpaid work in the future than their congruent counterparts. In the current study, the sample of students who had chosen a gender-incongruent major was too small to draw far-reaching conclusions. Nevertheless, the findings suggest that gender incongruence in major choices may be

associated with the desire for and support of a more gender-balanced division of unpaid work. Even in the absence of clear causal patterns, this may indicate that the share of young women and men choosing gender-incongruent majors could reflect an increasing climate of gender equality.

Limitations

Despite our best efforts, the present study is not free from limitations associated with the data availability and quality, which were beyond our control. First, the data were cross-sectional, hence not allowing for observing possible evolution over time. Moreover, we are unable to draw far-reaching conclusions about the actual choices participants are likely to make in the future. Second, in the present analysis, we used the Slovak subset of the UCOM datasets, which focused only on psychology and STEM students; thus, the picture we have obtained is necessarily limited. Additionally, despite the attempts to reach as many male and female students in both fields, the sample did not meet the boundary conditions; thus, the resulting sample was underpowered for more advanced analysis. The inherent limitations of the capacity of the educational system in Slovakia forced us to use convenience sampling and snowball techniques to collect as many questionnaires as possible. Therefore, we need to remember that the sample composition may not be fully representative and, to some extent, biased by self-selection. To compensate for these limitations, future research could focus on longitudinal studies that compare students' attitudes, beliefs and expectations at least twice during their academic lives—at the beginning of their studies and around graduation—and across various faculties and fields of study.

Conclusions

Our results contradict previous findings that higher education could be the sole driver of gender equality. In contrast, the current study indicates that gender-incongruent major choices could become the indicators, if not drivers, of the desire for gender equality in unpaid domestic work to a greater extent than the mere decision to study. Although, regardless of their biological sex or major, all students showed preferences differing from descriptive and prescriptive norms, the students who chose majors that are traditionally seen as gender-incongruent strived for more equality in their future family lives. Moreover, the results concerning preferences and expectations about future family life show that, without policy interventions and support, gender norms and acceptance of men being more involved in family life are unlikely to change or change quickly enough to avoid perpetuating the unequal distribution of unpaid work. This inequality may be a disappointment for both men and women, who strive for greater work-life balance and general well-being.

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