



ARTICLE

## Gender-Specific Stressors and Coping Strategies in Adult Education with Migrants in Germany

Florian Vukadin <sup>\*</sup> , Pavol Tománek 

Department of Public Health, St. Elizabeth University of Health and Social Sciences, 81106 Bratislava, Slovak Republic

### ABSTRACT

The increasing migration to Europe faces countries with the challenge of successfully integrating the people who have decided to stay. In Germany, the nation with the most immigrants, integration work is carried out by a variety of workers (full-time employees, lateral entrants and volunteers). These semi-professionals lack the relevant experience and qualifications and are therefore more susceptible to stress and declining motivation. Differences between men and women in this area are assumed and analysed both descriptively and inferentially in an empirical approach with 254 respondents. The results show a difference between men and women in the perception of stress, triggers and levels, but no significant differences in coping strategies were recognised. Recommendations for a better working environment can be derived from the findings in order to successfully carry out systemically relevant integration work at a high level. The findings highlight the importance of professionalization of adult education staff working with migrants, emphasizing competence-oriented training to improve stress resilience and work effectiveness. Additionally, the study underscores the necessity of fostering a better work-life balance and tailoring training programs to address gender-specific motivational factors and stress triggers, ultimately enhancing educators' well-being and integration of work outcomes. These insights can inform targeted development and support measures for educators in this field.

**Keywords:** Integration; Adult Education; Migrants; Teachers; Stressors; Coping Strategies

#### \*CORRESPONDING AUTHOR:

Florian Vukadin, Department of Public Health, St. Elizabeth University of Health and Social Sciences, 81106 Bratislava, Slovak Republic;  
Email: [florianvukadin@aol.com](mailto:florianvukadin@aol.com)

#### ARTICLE INFO

Received: 15 September 2025 | Revised: 5 November 2025 | Accepted: 12 November 2025 | Published Online: 20 November 2025  
DOI: <https://doi.org/10.63385/cces.v1i2.226>

#### CITATION

Vukadin, F., Tománek, P., 2025. Gender-Specific Stressors and Coping Strategies in Adult Education with Migrants in Germany. Cross-Cultural Education Studies. 1(2): 57–75. DOI: <https://doi.org/10.63385/cces.v1i2.226>

#### COPYRIGHT

Copyright © 2025 by the author(s). Published by Zhongyu International Education Centre. This is an open access article under the Creative Commons Attribution 4.0 International (CC BY 4.0) License (<https://creativecommons.org/licenses/by/4.0>).

# 1. Introduction

The refugee situation that intensified during the “long summer of migration”<sup>[1]</sup> in 2015 has not improved in the subsequent years. During the 2020/21 pandemic, the issue of migration has faded into the background because the movement of refugees has been greatly curbed by interventions in entry conditions through border closures. However, the humanitarian crisis between Belarus and Poland and the war in Ukraine led to further refugee movements towards the West<sup>[2-4]</sup>. The core problems of the geopolitical situations and the climate-related disasters continue to exist and are determining the migration situation internationally, supranationally and as internal flight.

This raises the question of which conditions are necessary to offer refugees in Europe, particularly in Germany, realistic prospects for integration. Educational work is regarded as a key factor in integration, providing essential tools such as language skills. However, educational tasks are also necessary that relate to the culture of the host countries, expand the basic political structure and offer training, further education and training in the professional field that allows people to position themselves in the labour market and achieve economic independence and social participation.

Although women comprise the majority of workers in this field, gender differences in motivation, stress perception, and coping strategies remain under-researched. Such a perception would enable decision-makers and employers to identify gender-specific affectors and effectors at work and to improve working conditions. Here, the factors of motivation promotion, stressor reduction and an increase in individual coping strategies are particularly determinant. These factors are particularly relevant to working with migrants, which involves a range of complex challenges. Examples are

- Psychological conditions in migrants (trauma, feeling of ‘otherness’, stress factors, social pressure and pressure to integrate, basic cultural personality traits)
- Training skills on the part of the trainers (intercultural competence) Influence on success
- Mixing of different cultures in the groups that take part in educational programmes Group dynamics and conflicts
- Language barriers Language as a basic tool for interaction

The reason for differentiating between the perception of stressors and the individual realisation of the coping strategies used by gender is that these characteristics also differ between women and men in other fields of work<sup>[5]</sup>. Stereotype-based assumptions create misunderstandings and workplace inequities, necessitating empirically grounded research approaches. Therefore, the scientific orientation is to use an empirically based approach and to investigate the two main parameters of stressors and coping strategies in the selected area using quantitative methodology.

The main burden of responsibility in this particular area lies with female educators, which raises the key research question:

*What are the actual stressors experienced by female and male employees in adult and continuing education when working with migrants?*

Further research-relevant questions for determining the parameters are derived from this:

*What are the objectively determinable stressors for the different genders working in this particular area of adult education?*

*Which objectively determined coping strategies are used for perceived stressors in the genders?*

The added value and benefit of such gender-specific approaches lies in the fact that, in the case of intrinsic differences, it is possible to determine how work and working conditions may need to change in order to be equally appealing to both genders. Based on the results of this research, recommendations for practice can be developed that serve to improve the general situation in the working environment. The information on stress and coping generated in the study will be categorised in the framework model according to Cramer et al.<sup>[6]</sup> in order to gain insights into the stresses, resources and consequences of the strain on staff in adult and continuing education

The following hypotheses are therefore statistically analysed as part of this research:

**H1.** *There is a significant difference between men and women with regard to the Intrinsic Motivation Inventory variable.*

**H2.** *There is a significant difference between men and women with regard to the Coping Positive Thinking variable.*

**H3.** *There is a significant difference between men and women with regard to the coping variable alcohol and cigarette consumption.*

**H4.** *There is a significant difference between men and women with regard to the variable Coping Social Support.*

## 2. Rationale for the Study

The study aims to expand the state of research and close existing research gaps. The studies that are relevant to the research question are considered below. These are quantitative, qualitative and mixed-methods studies. To date, no study has comprehensively examined the motivation, gender-specific stressors, and coping strategies of adult educators working with migrants within a single integrated framework. This research addresses the growing significance of migration-related development as an existing gap in the literature and provides an initial attempt to close it.

In her work, Klöckner<sup>[7]</sup> examined motives for volunteering in charitable and migrant organisations and presented four clusters: a pseudo-altruistic cluster (e.g., helping others), a socio-religious cluster (e.g., making social connections), a self-centred-hedonistic cluster (e.g., furthering one's education, gaining experience) and a self-esteem and compensation cluster (e.g., compensation in retirement).

Evers et al.<sup>[8]</sup> provide explanatory approaches on the topic of motivation, motivators and commitment when working with this target group. The question "How goal-oriented was the support for work with refugees in Upper Bavaria in 2018?" was investigated at the Catholic University of Eichstätt-Ingolstadt using guided interviews, online surveys and group discussions. A total of 469 volunteers took part in the online surveys. The sub-complex "Incentive/motivation for volunteering in refugee aid" is interesting. The results show that employees want to feel that they are needed (75.2%) and want to give something back to society (62.2%). Other motivators can be found in living religious values (58.6%) and the desire to meet new people (55.6%). Many of those surveyed in the study want to use their voluntary work to "set an example against racism, marginalisation and nationalism"<sup>[8]</sup> and, on the other hand, to compensate for or counteract the injustice of (inter)national politics. The study refers to the "importance of measures for volunteering"<sup>[8]</sup>, networking meetings with other communities or volunteer

groups, support and advice from local full-time staff, further training for volunteers and psychological support in the event of stress, problems and strain.

Jungk and Morrin<sup>[9]</sup> conducted 19 guided interviews with people involved in refugee aid as part of the study "Integration through volunteering". The motives for volunteering were analysed. These lie in the satisfaction of helping, openness towards other cultures, empathy and a sense of responsibility, recognising grievances and the desire to contribute to change, religious motives, their own experience of war or flight and professional benefits. Added to this is the conviction "[...] that something is at stake" and the opportunity to make a direct impact. In their final report, Jungk and Morrin<sup>[10]</sup> present motivational theories on volunteering. In their view, the motives of committed individuals are not only of scientific interest, but also for institutions for which the voluntary commitment of people is important in terms of human resources. However, Jungk and Morrin state that previous studies have provided few explanations "[...] regarding the specific situation of volunteering with refugees"<sup>[9]</sup>.

According to Karakayali and Kleist<sup>[11]</sup>, the motives of volunteers working with migrants are primarily of a humanitarian, religious or civic nature. In a non-representative quantitative online survey, the researchers examined structures in volunteer refugee work "[...] and preliminary responses, i.e., who the volunteers are, what they do, how they are organised and what drives them"<sup>[11]</sup>. One result of the study is that 74% of volunteers want to "shape society"<sup>[11]</sup>. A small proportion (3.5%) expect professional benefits. Younger volunteers are more likely to have a migration background. The researchers summarise that older volunteers tend to be motivated by religion, while younger volunteers are motivated by "[...] social proximity to the group of people concerned [...]"<sup>[11]</sup> is the reason for their commitment.

In a second online survey on volunteer refugee work in 2015, Karakayali and Kleist<sup>[12]</sup> questioned 2291 people in Germany. Here, the reasons given for volunteering were: "(1) Support in the social environment is considered important, (2) A sense of community with other volunteers as motivation, (3) Learning new things about the world and cultures, (4) Media reports about refugees as a reason for volunteering"<sup>[12]</sup>.

Bohn and Aliche<sup>[13]</sup> note that some volunteers actively

advocate “ [...] fundamental values of freedom and solidarity [...]”<sup>[13]</sup> and thus connect the refugees with the host society and counteract a polarisation of society<sup>[10, 14]</sup>.

Using questionnaires and interviews with 155 (prospective) computer science teachers, Bender et al.<sup>[15]</sup> investigated the beliefs and motivational orientations of computer science teachers. They came to the conclusion that the motivational preconditions of teachers for their practical work promote the motivation of pupils. High self-efficacy expectations are important for the implementation of new learning content in the classroom.

Beer et al.<sup>[16]</sup> investigated the perception of stress and coping strategies in the Master’s degree programme in primary education in Austria using a mixed methods study (qualitative-quantitative). The results showed that Master’s students who completed the programme in parallel with starting a career had a higher level of stress than full-time Master’s students.

Troesch and Bauer<sup>[17]</sup> analysed problem-centred interviews with 23 second-career teachers. 14 of these teachers were still working in the teaching profession, and nine had left. The study focused on professional challenges and coping strategies. The following problems were recognised in the teachers’ collegial collaboration: Feelings of isolation and lack of support from colleagues, disappointment with the management style of the head teacher and conflicts. With regard to their own expectations and demands, high self-demands and insecurities about their own competence and performance were mentioned. Teaching-related challenges included disruptions, great heterogeneity and feelings of stress and overload due to lessons or preparations. The change from the previous profession to the more unstructured work as a teacher also proved to be particularly challenging.

Cancio et al.<sup>[18]</sup> analysed stress and coping as part of a quantitative survey of 209 special education teachers. This showed that an increased number of pupils, multiple roles, pupil behaviour and existential worries were stress-causing factors. Cancio et al. identified dancing, writing, listening to music, gardening, yoga, support from social contacts, but also eating, taking medication, tobacco, alcohol or drugs as coping strategies.

Overall, it can be seen that the stressors in the individual studies are very similar or congruent: Student behaviour, loss of status, lack of support from superiors, increase in

administrative tasks, time pressure, lack of teamwork, value erosion or workload. The coping strategies are found across all studies in the form of physical stress reduction, through social contacts or in the form of compensatory activities, but also in the form of (planned) sick leave or maladaptive consumption of stimulants, medication or illegal drugs.

Since previous research includes adult educators but does not fully include negative coping strategies, this area must generally be regarded as an existing research gap. In addition, the relevant and sensitive area of work with migrants is omitted and, for the first time, empirically recorded with stress and coping strategies in this special area by means of the own empirical study.

### 3. Methodology

The research is quantitative in nature and contains an explorative data analysis using descriptive and inferential statistics. The research logic followed a hypothesis-testing design suitable for quantitative analysis.

A survey was conducted at the end of 2023 using an online questionnaire aimed at people who work with adult migrants. The participant recruitment deliberately encompassed diverse educational contexts – including language instruction, civic education, and vocational training – to ensure comprehensive representation of migration-related adult education work. An information letter detailing the study’s purpose, the voluntary nature of participation, anonymity, and data protection measures was sent by email to refugee aid institutions and organisations and projects involved in migration work. Participant consent was obtained prior to participation. The research was conducted in compliance with the ethical guidelines of the St. Elizabeth University of Health and Social Sciences, Bratislava.

The project was also publicised verbally and on social networks. Data was collected via the Survio platform. The data collection process consisted of two phases: a pilot survey to test and refine the questionnaire instrument, followed by the main survey. Both phases utilized the same online questionnaire format but differed in sample size based on power analysis results. Despite the intended breadth of the target group, neither sample (pilot survey and main survey) is a purely random sample, as the focus group of adult educators for migrants is of interest. The following sampling

criteria were defined when designing the survey:

- The survey is aimed at people who work with adult migrants ( e.g., in language courses, integration projects, counselling). The spectrum was deliberately kept broad so that people from various areas of heterogeneous education and training with adults could participate.
- The sampling method used is non-probability sampling, where non-random methods are used to select a specific group to participate in a study. This sampling method is used to obtain the opinions of a specific group of people.<sup>[19]</sup>

The questionnaire is structured equally for women and men as follows: Twelve statements taken from the German Short Scale of Intrinsic Motivation (Kurzskala intrinsische Motivation, KIM), constructed and standardized by Wilde et al.<sup>[20]</sup>. This questionnaire is a further development of the Intrinsic Motivation Inventory (IMI) by Deci and Ryan<sup>[21]</sup>. It includes statements on interest in work, enjoyment of work, perceived competence and pressure and tension at work. The following are four questions about empathic attitude. These are taken from the Saarbrücken Personality Questionnaire - short version, constructed and standardized by Paulus<sup>[22]</sup>. This is a further developed German version of the Interpersonal Reactivity Index (IRI) by Davis<sup>[23]</sup>.

This is followed by twelve physical stress symptoms and 16 questions on coping strategies. The basis for this is the Stress and Coping Inventory (SCI), constructed and standardized by Satow<sup>[24]</sup>. This is followed by nine statements of events that may have led to excessive demands on the adult educators in the last three months, e.g., teaching disruptions, cultural differences or participants' health problems.

Participants respond by clicking on the answer options on a Likert scale.

**Appendix A** lists the statements that were presented to the participants as part of the survey. The corresponding metric is listed next to each statement, which is important for operationalisation and hypothesis testing.

The pilot survey was carried out with 60 participants (30 women and 30 men). Preliminary inferential statistical analysis of the pilot data revealed issues with statistical power, as all hypotheses were rejected. Using an a priori power analysis with GPower software, an insufficient sample size was identified. This finding informed the adjustment of the recruitment strategy for the main survey phase. The main survey was carried out in November and December 2023 with an increased sample. The final values of the main survey are analysed. The sample of the final survey is  $n = 254$  cases. The aim of achieving an almost equal gender distribution was achieved.

In the analysis conducted with SPSS, various statistical procedures were applied. These included descriptive statistics (means, standard deviations, frequencies), reliability analyses using Cronbach's alpha, confirmatory factor analysis (CFA) to validate the scale structure,  $t$ -tests for independent samples and Mann-Whitney  $U$  tests for group comparisons, ANOVA (Analysis of Variance) for multifactorial tests, and moderated regression analysis to examine interactive effects between gender and variables such as stress symptoms or motivation.

The analysis is based on a number of latent variables, for which the reliability using Cronbach's Alpha as an internal consistency measure was calculated. The results are outlined in **Table 1**.

**Table 1.** Reliability analysis of the latent variables, main survey.

Metrics	Reliability: Cronbach's Alpha
Intrinsic Motivation Inventory: Interest/pleasure	0.58
Intrinsic Motivation Inventory: perceived competence	0.68
Intrinsic Motivation Inventory: perceived freedom of choice	0.75
Intrinsic Motivation Inventory: pressure/tension	0.73
Intrinsic Motivation Inventory: total score	0.75
Stress symptoms	0.83
Coping Positive thinking	0.76
Coping with alcohol and cigarette consumption	0.79
Coping Social support	0.83
Coping Active stress management	0.77
Additionally (not relevant for the hypotheses): Interpersonal Reactivity Index	0.77

Due to the larger sample, the internal consistency values are more stable and the majority are above the threshold value of 0.7. Small deviations are to be deliberately assumed, as the evaluation involves the established questionnaires. The variables were formed as part of the confirmatory factor analysis (CFA). The factor analysis is based on analysing the correlation matrix of the individual variables and forms the latent variables as a linear combination of the items.

## 4. Results

The analysis begins with a description of the sample in **Table 2**.

The sample comprises men and women. The sample size is sufficient according to the results of the a priori power analysis. Valid shows the gender ratio graphically (**Figure 1**).

**Table 3** shows the extent to which study participants work full-time or voluntarily with people with a migration background.

The majority of respondents (177 out of 253) are volunteers. This tendency is roughly the same for men and women. It should be noted that some questions were answered by only 253 study participants. The percentage distribution of employment relationships is shown in **Figure 2**.

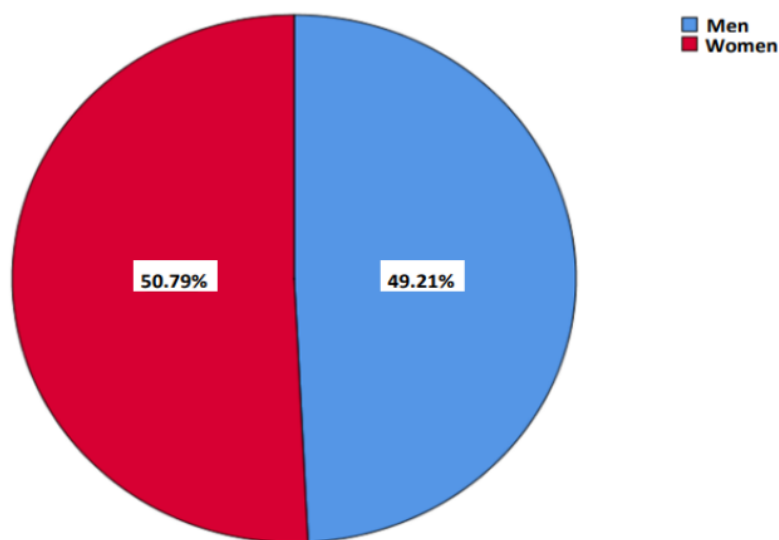
The age composition of the sample can be seen in **Table 4**.

The sample consists predominantly of younger participants, with 160 of 253 respondents aged 20–30 years. The situation in the groups of women and men is very similar, as can also be seen in the bar chart in **Figure 3**.

The description of the sample of the main test is followed by inferential statistical testing of the hypotheses.

**Table 2.** Sample description: Main survey, gender.

	Percent	Valid Percent	Cumulative Percent
Valid	Men	49.2	49.2
	Women	50.8	50.8
	Total	100	100



**Figure 1.** Sample description: Main survey, gender.

**Table 3.** Sample description: Main survey, employment relationship.

Are You Working Full-Time or on Voluntary Basis with People with Migration Background?	Gender		Total
	Men	Women	
Full-time	42	34	76
Voluntary basis	83	94	177
Total	125	128	253

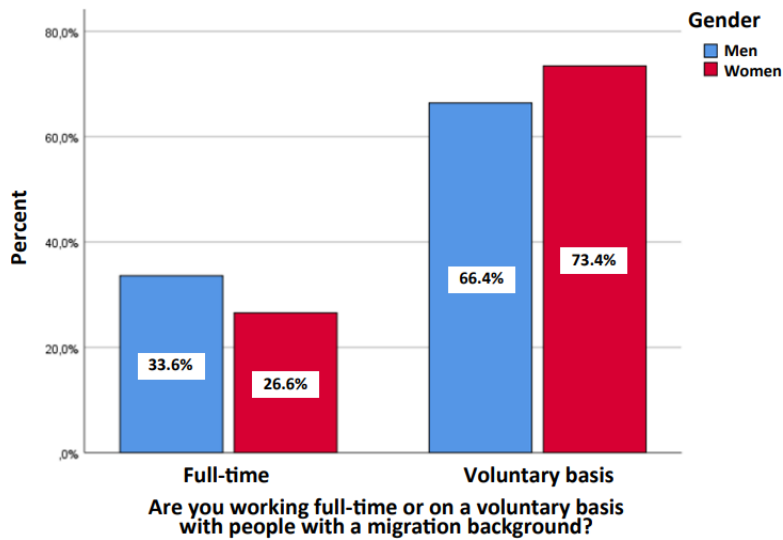


Figure 2. Sample description: Main survey, employment relationship.

Table 4. Sample description: Main survey, age.

		Gender		Total
		Men	Women	
How Old Are You?	20–30 years	81	79	160
	30–40 years	24	28	52
	40–50 years	13	13	26
	50–60 years	2	4	6
	60+ years	5	4	9
Total		125	128	253

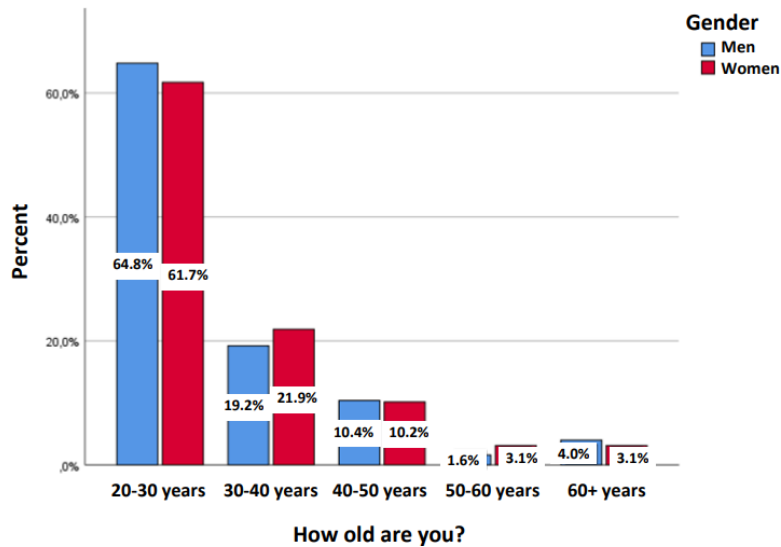


Figure 3. Sample description: Main survey, age.

### Inferential Statistical Analysis

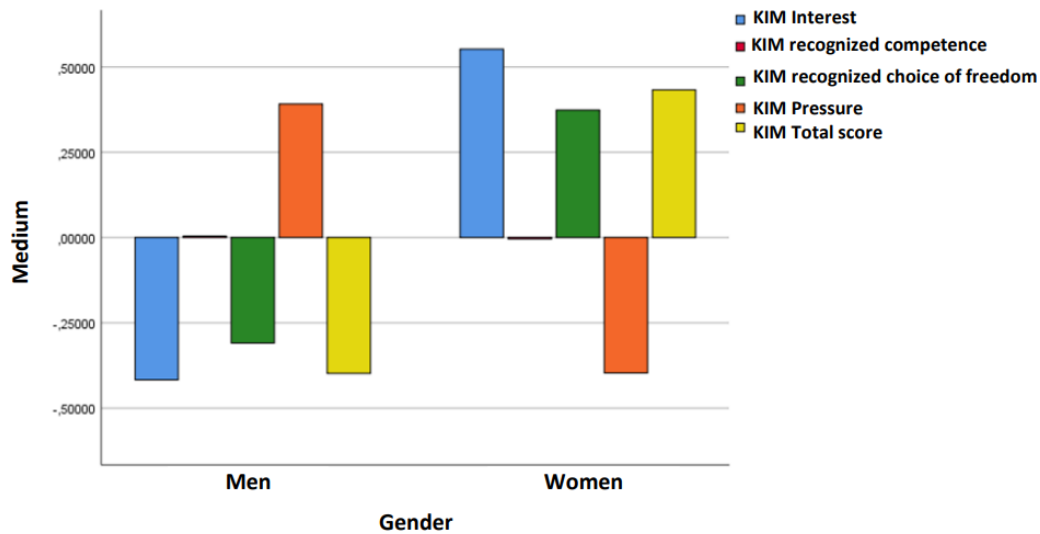
Hypothesis 1 concerns intrinsic motivation. **Figure 4** shows the mean values of the KIM scale for men and

women. It should be noted that the values calculated within the framework of CFA are standardised, i.e., the mean value is determined by 0 and the standard deviation by 1. This

results in the deviations from a centre line in **Figure 4**.

It can be seen that the individual facets are very different: For women, motivation based on interest tends to be positive, whereas for men it tends to be negative. It can

therefore be said that interest and freedom of choice are more important for women and pressure and competence for men (the values for competence tend not to differ from zero). The overall score is slightly higher for women than for men.



**Figure 4.** Hypothesis 1: Main survey.

These findings are subsequently analysed using inferential statistics. Firstly, a *t*-test for independent samples is

applied<sup>[25]</sup>. **Table 5** contains the corresponding inferential statistical tests.

**Table 5.** Hypothesis 1: Main survey, *t*-test.

Variances		Levene-Test of Variance Equality		T	df	Significance (2-Sided)	<i>t</i> -Test for Medium Equality		95 % Confidence Interval of Difference	
		F	Significance				Medium Difference	Standard Error of Difference	Lower	Upper
KIM interest	Equal	4.880	0.028	-8.853	252	0.000	-0.96956	0.109512	-1.18525	-0.75387
	Inequal			-8.828	241.583	0.000	-0.96956	0.109832	-1.18589	-0.75322
KIM re-cognized competence	Equal	0.372	0.543	0.068	252	0.946	0.00859	0.12575	-0.23971	0.25620
	Inequal			0.068	244.466	0.946	0.00859	0.12604	-0.23972	0.25680
KIM re-cognized choice of freedom	Equal	3.770	0.053	-5.784	252	0.000	-0.68297	0.11836	-0.91551	-0.45044
	Inequal			-5.770	243.501	0.000	-0.68297	0.11840	-0.91612	-0.44983
KIM pressure	Equal	2.335	0.128	6.821	252	0.000	0.78880	0.11553	0.56054	1.01562
	Inequal			6.833	250.612	0.000	0.78880	0.11553	0.56091	1.01524
KIM Total score	Equal	1.318	0.252	-7.272	252	0.000	-0.83121	0.11454	-1.05684	-0.60558
	Inequal			-7.256	244.854	0.000	-0.83121	0.11454	-1.05684	-0.60558

The data in the table indicate that:

KIM interest scale: Women have significantly higher ( $M = 0.55$ ) values than men ( $M = -0.42$ ),  $t(df = 241,58) = -8828$ ,  $p < 0.05$ .

KIM competence scale: There is no significant difference between women ( $M = 0.00$ ) and men ( $M = 0.00$ ).

Scale KIM Freedom of choice: Women have significantly higher ( $M = 0.37$ ) values than men ( $M = -0.31$ ),  $t(df = 252) = -5784$ ,  $p < 0.05$ .

KIM pressure scale: Women have significantly lower

( $M = -0.40$ ) values than men ( $M = 0.40$ ),  $t(df = 252) = 6821$ ,  $p < 0.05$ .

Scale KIM total score: Women have significantly higher ( $M = 0.43$ ) values than men ( $M = -0.40$ ),  $t(df = 252) = -7272$ ,  $p < 0.05$ .

**Hypothesis 1 is therefore confirmed.** Intrinsic motivation plays a significantly greater role for women, particularly in the aspects of interest and freedom of choice. For men, the aspect of pressure is significantly more important. The genders do not differ significantly in the aspect of compe-

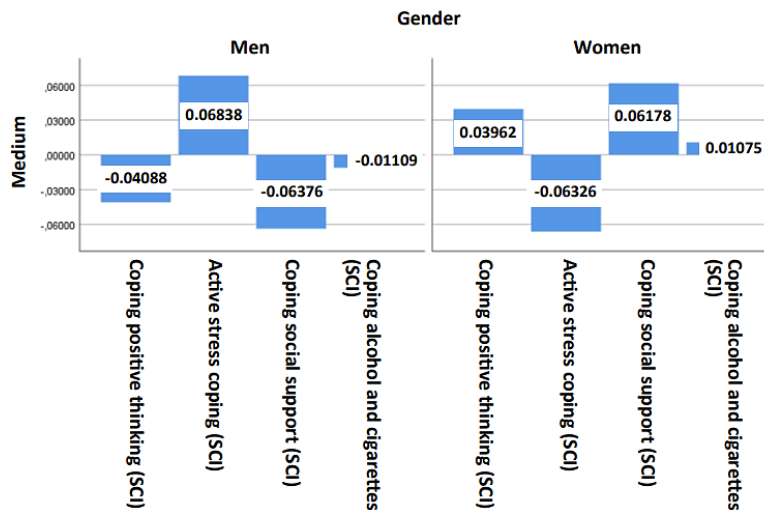


tence.

Hypotheses 2 to 4 also statistically analyse the difference between men and women. Here, as in hypothesis 1, the

*t*-test is used for the independent sample.

The bar chart in **Figure 5** and **Table 6** shows the characteristic values of the group.



**Figure 5.** Hypotheses 2 to 4: Group comparison.

**Table 6.** Hypotheses 2 to 4: Group comparison.

	Gender	N	Medium	Standard Frequency	Standard Error of Medium
Coping positive thinking (SCI)	Men	125	-0.0408844	0.96935161	0.08670144
	Women	129	0.0396167	1.03105271	0.09077913
Active stress coping (SCI)	Men	125	0.0683840	1.00654519	0.09002814
	Women	129	-0.0662636	0.99302455	0.08743094
Coping social support (SCI)	Men	125	-0.0637615	1.05083397	0.09398945
	Women	129	0.0617844	0.94815662	0.08348054
Coping alcohol and cigarettes (SCI)	Men	125	-0.0110925	1.03791931	0.09283433
	Women	129	0.0107485	0.96577135	0.08505314

Here, too, the bar charts are to be understood as deviations from a common mean value of zero. Women have, as can also be seen from **Table 6**, higher values for positive thinking and social support. Men have higher scores in active stress management. The groups hardly differ in alcohol and

cigarette consumption, as the group mean values are close to zero. The column medium in **Tables 6 to 11** refers to the mean value.

This is followed by the test with the closing statistic (see **Table 7**).

**Table 7.** Hypotheses 2 to 4, *t*-test.

	Variances	F (Levene)	Significance (Levene)	T	df	Significance (2-Sided)	Medium Difference	Standard Error of Difference	95% Confidence Interval of Difference (Lower)	95% Confidence Interval of Difference (Upper)
Coping positive thinking (SCI)	Equal variances	0.419	0.518	-0.641	252	0.522	-0.08050116	0.12565321	-0.32796540	0.16696309
	Inequal variances			-0.641	251.773	0.522	-0.08050116	0.12553084	-0.327772547	0.16672315
Active stress coping (SCI)	Equal variances	0.035	0.852	1.073	252	0.284	0.13464759	0.12546913	-0.11245411	0.38174929
	Inequal variances			1.073	251.487	0.284	0.13464759	0.12549595	-0.11250938	0.38180456

Table 7. Cont.

	Variances	F (Levene)	Significance (Levene)	T	df	Significance (2-sided)	Medium Difference	Standard Error of Difference	95% Confidence Interval of Difference (Lower)	95% Confidence Interval of Difference (Upper)
Coping social support (SCI)	Equal variances	1.090	0.297	-1.000	252	0.318	-0.12554584	0.12550657	-0.3727272129	0.12162960
	Inequal variances			-0.999	247.561	0.319	-0.12554584	0.12571005	-0.37314345	0.12205176
Coping alcohol and cigarettes (SCI)	Equal variances	1.844	0.176	-0.174	252	0.862	-0.02184105	0.12574797	-0.26949192	0.22580982
	Inequal variances			-0.173	249.331	0.862	-0.02184105	0.12589105	-0.26978650	0.22610440

All significances or p-values are above the threshold value of 5% or 0.05.

Thus, all tests of the hypotheses are not significant. There are no differences between men and women with regard to coping strategies. **Hypotheses 2 to 4 are rejected.** The metrics that were not directly included in the hypotheses

are also analysed.

The results of the IRI are shown in **Figure 6**.

As can be seen, the genders do not differ greatly in IRI either: women (MW = 3.62) have a slightly higher value than men (MW = 3.55). **Table 8** (key figures) and **9** (*t*-test) provide further information about the results of the IRI.

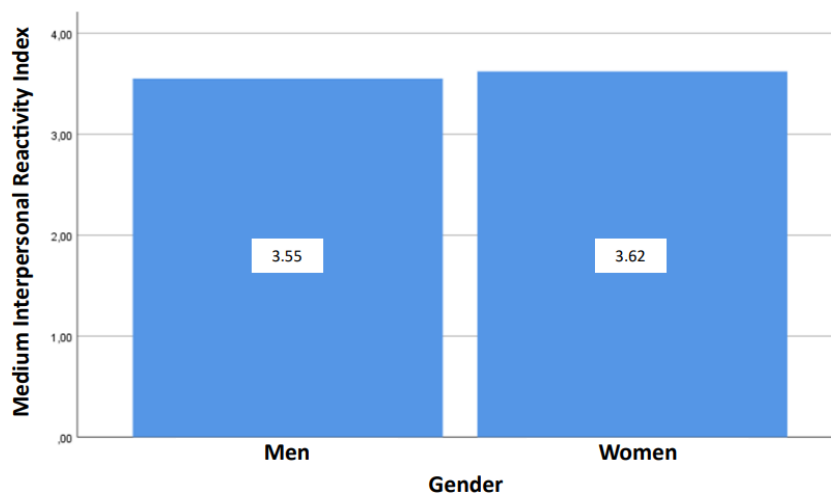


Figure 6. Main survey: IRI.

Table 8. Main survey: IRI, key figures.

Interpersonal Reactivity Index (Group Statistics)	Gender	N	Medium	Standard Frequency	Standard Error of Medium
	Men	125	3.5500	0.74257	0.06642
	Women	129	3.6202	0.64959	0.05719

Table 9. Main survey: IRI, *t*-test.

Interpersonal Reactivity Index	Levene-Test of Variance Equality		T	df	Significance (2-Sided)	t-Test for Medium Equality		95 % Confidence Interval of Difference	
	F	Significance				Medium Difference	Standard Error of Difference	Lower	Upper
	Equal variances	0.770	0.381	−0.802	252	0.423	−0.07016	0.08747	−0.24231
Inequal variances			−0.800	245.376	0.424	−0.0701	0.08765	−0.24280	0.10249

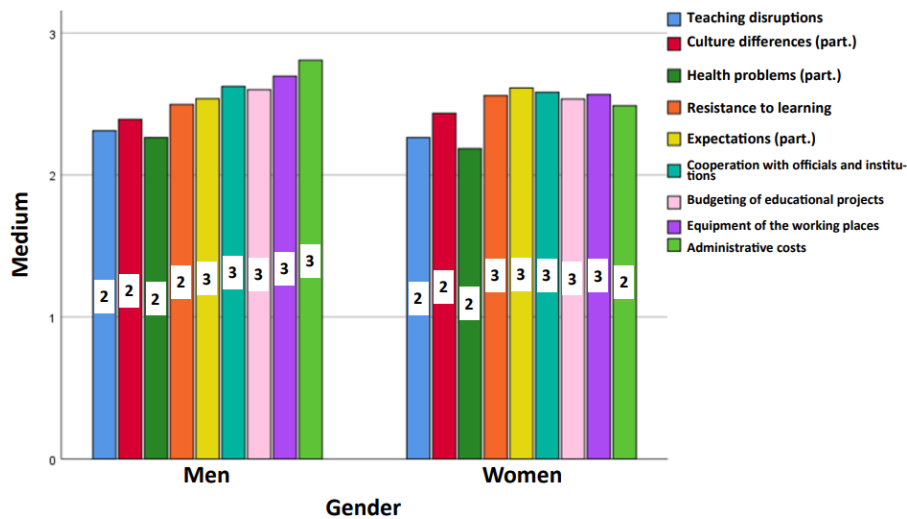
Based on **Tables 8** and **9**, it can be stated that the differences between men and women are not statistically significant.

Finally, the stress symptoms per group are analysed in

**Figure 7.**

This figure shows that women react more sensitively to learning resistance and men to administrative effort. The

last difference is also significant: men actually find administration more stressful than women. These results are detailed in **Table 10**.



**Figure 7.** Stress symptoms, main survey.

**Table 10.** Stress symptoms, main survey, Mann-Whitney-U test.

	Teaching Disruptions	Culture Differences of the Participants	Health Problems of the Participants	Resistance to Learning of the Participants	Expectations of the Participants	Cooperation with Officials and Institutions	Budgeting of Educational Projects	Equipment of the Working Places	Administrative Costs
Mann-Whitney-U	7820.0	7896.5	7500.5	7864.5	7634.0	7937.5	7801.5	7499.5	6626.0
Wilcoxon-W	16205.0	15771.5	15885.5	15739.5	15509.0	16322.5	16186.5	15884.5	15011.0
Z	-0.432	-0.299	-1.017	-0.356	-0.781	-0.225	-0.469	-1.004	-2.574
Asymptotic significance (2-sided)	0.666	0.765	0.309	0.722	0.435	0.822	0.639	0.315	0.010

It is evident that all other symptoms do not differ significantly between the groups.

With regard to the research hypotheses, the results can be summarized as follows:

**H1.** *There is a significant difference between men and women with regard to the **Intrinsic Motivation Inventory** variable.* The research did not reveal any significant differences in the coping strategies, meaning that the hypotheses put forward cannot be regarded as confirmed.

**H2.** *There is a significant difference between men and women with regard to the **Coping Positive Thinking** variable.*

**H3.** *There is a significant difference between men and women with regard to the coping variable **alcohol and cigarette consumption**.*

**H4.** *There is a significant difference between men and women with regard to the variable **Coping Social Support**.*

In medical psychology, research approaches are based on evolutionary determinants of human behaviour that are regarded as recognised constants.

## 5. Discussion

Before discussing the content, it is important to first point out the limitations that arise from the composition of the sample. While this study provides valuable insights into gender-specific stress and coping patterns, the findings must be interpreted within the context of significant methodological limitations. The non-random sample, dominated by young volunteers (mean age 20–30), may not reflect the experiences of older, more established professionals in migration-related adult education. Future research should prioritize representative sampling across age groups and employment types, employ longitudinal designs to track stress trajectories over time, and include qualitative components to deepen

understanding of context-specific stressors and the decision-making processes behind coping strategy selection.

Stress becomes evident in many contexts when numerous factors must be simultaneously managed. These increase when they have to be mastered in addition to standard tasks and cannot (yet) be counted as core competencies. These basic stresses were identified as determinants in the occupational field and voluntary work in adult education with migrants. It was assumed as an additional factor that there are differences between men and women in terms of intrinsic motivation and that this has a different effect on stress resilience.

Stereotypes<sup>[26]</sup>, as vividly described by Brandstätter et al.<sup>[27]</sup>, should not be assumed in gender differentiation or gender equality.

“If we had the task of summarising the existing stereotypes about the relationship between the sexes and emotionality, we would sum up the debate quite precisely with the heading “On the emotionality of women and the rationality of men”. In Western culture, femininity is closely intertwined with the concept of emotionality. Women are the ones who we believe have the almost exclusive ability to experience feelings intensely and express them appropriately, to communicate their own feelings successfully to others and in turn show a strong empathy with the feelings of others. Men, on the other hand, who are always rational, are in control of their feelings, controlling them and suppressing them if necessary. These stereotypical gender images regarding emotionality reflect society’s opinions and beliefs about how women and men (should) differ”<sup>[27]</sup>.

It should also be determined whether these differences are only typical for these tasks or this occupational field or whether they can also be compared and confirmed in other areas with similar strongly intrinsically motivated occupations.

In a study of primary school student teachers (high proportion of women) at the start of their careers ( $n = 195$ ), Beer et al.<sup>[16]</sup> found that stress levels increase in the active professional phase compared to the study phase. It was found that they experience greater mental exhaustion, higher demands, negative effects in their private lives and excessive demands at work. The results also showed that the perceived state of health is generally deteriorating. For this reason, our own research favoured a gender-oriented classification

of women and men, which contrasts social characteristics with biological ones<sup>[28]</sup>. Sauer emphasises: “The distinction between “sex” and “gender” is therefore primarily a heuristic one, which is intended to make it clear that gender images, expectations and impositions on men and women are not biologically determined, but socially constructed and therefore changeable. The distinction is intended to give women as well as men the opportunity to take their fate — i.e., their life plans — at least partially into their own hands”<sup>[28]</sup>.

This approach eliminates dominant, biologically-defined stereotypes, but it is still possible to speak of differences in female and male behaviour<sup>[26]</sup>. For example, there are proven differences in emotional expression, which can be demonstrated physically and through facial expressions. In addition, different emotional situations are processed differently. It should be emphasised that the experience of positive and negative events does not differ<sup>[27]</sup>. The handling varies and has different effects on intrinsic motivation. The results of our own empirical data collection have shown a difference that is consistent with results from experience reports in medical and sociological research<sup>[29–31]</sup>. Emotionality and, in particular, dealing with and thinking about negative events with negative self-related emotions such as embarrassment, guilt and shame, is more likely to be characterised by women in the research and therefore also has a faster negative effect on motivation and a higher stress factor. However, this must always be considered on a situational and individual basis and is not a generalised result. Only the tendency towards this has been proven here.

It is assumed that certain emotions are universal across cultures, ages and genders. These basic emotions include joy, surprise, anger, disgust, fear and sadness. However, their expression also depends on experience, conditioning and resilience. A situation can therefore be evaluated positively, neutrally or negatively. This gives rise to secondary expectations or attitudes, which also show negative stress symptoms in the event of a negative assessment<sup>[27]</sup>.

Combined with intrinsic motivation, an activity with a supportive or helping character is characterised by an increased need to help people who are perceived as being in need of help. One’s own actions are geared towards a concept of one’s own effectiveness, which is synonymous with the idea that one is the cause of a self-recognised positive change<sup>[32]</sup>. If this attitude is determined in relation to

a teacher and learner situation, then the teacher expects a positive response to their own actions and activities. When expected positive outcomes fail to materialize or yield negative results, intrinsic motivation may deteriorate significantly. This can have two effects. Firstly, the activity is approached the activity without expectations and it is irrelevant whether success is generated. Secondly, self-doubt can arise as to whether one can generate a positive effect on one's environment with one's own behaviour and actions. This may escalate into depression and evolve into a chronic condition requiring professional intervention.

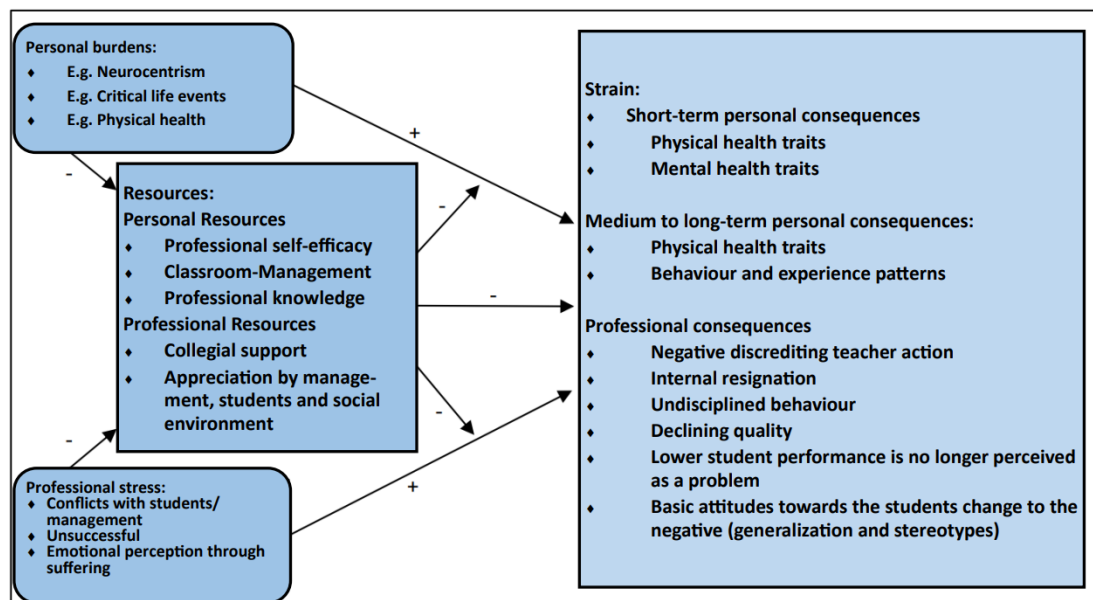
In 2014, the Bavarian Business Association (VBW) presented an expert report on the topic of burnout in teaching professions. Burnout is not understood here as a single diagnosis, but serves as an umbrella term for various forms of psychological stress such as anxiety disorders, depression, psychosomatic disorders and addictions. Meta-analyses of previous research demonstrate that teaching professions consistently report above-average stress levels and elevated rates of occupational exhaustion. This is also reflected in the number of days lost due to these symptoms, which were high among teachers but affected many helping professions<sup>[33]</sup>. Based on this, there are indications that strongly intrinsically motivated fields of work are more likely to develop a negative perception during the period in which they are practised.

Sisolefsky et al.<sup>[34]</sup> have picked out research from the healthcare sector and summarised a recognised tendency towards higher levels of stress and burnout symptoms. The link between the helping profession and vulnerabilities thus appears to be symptomatically more frequent.

In order to do justice to this, the implication of our own research results must be mapped onto the integrative framework model on stress, resources and consequences of teacher stress according to the researchers Cramer et al.<sup>[6]</sup> in order to determine resources and stress and to visualise personal and professional consequences. The results obtained can therefore also be used to make recommendations that have a determining and not just a descriptive effect. The complexity of the model has been consciously accepted, as the model offers considerable advantages.

“In terms of content, the framework model favours neither the conditional side of stress nor the side of the consequences of stress. It also attempts to create a balance between personal and occupational variables, which have been underrepresented to date. In this respect, the integrative framework model should not be misunderstood as a direct basis for an empirical study, but rather serves to create an organised overview of the existing constructs, variables and empirical findings”<sup>[6]</sup>.

The model (**Figure 8**) is shown graphically for better understanding.



**Figure 8.** Integrative framework model on stress, resources and consequences of teacher stress.

Source: Cramer et al, 2018, p. 14<sup>[6]</sup>.

Personal stress in the selected occupational field was recorded empirically. The parameters were:

- Classroom disruptions;
- Cultural differences of the participants;
- Health problems of the participants (physical and mental);
- Learning resistance of the participants;
- Participants' expectations and requirements;
- Cooperation with authorities and institutions;
- Budgeting of the educational project;
- Equipment of the workplace;
- Administrative expenses.

The results showed that men are slightly more bothered by cultural differences, the expectations and demands of participants, cooperation with authorities, budgeting, workplace equipment and administrative work. Teaching resistance is more significant for women. The differences were not significant, so that no general gender-specific difference can be summarised.

No participant-specific distinctions can be made with regard to general disruptions in lessons, as teaching situations always occur in general, i.e., regardless of participants, and are therefore a general component of workflow interruptions. These were rated the same for both groups and were in a lower range.

More relevant are participant-related aspects that have an impact on the teachers' well-being. They are therefore particularly important for research in adult education with migrants.

Cultural differences among participants are a factor that can influence the homogeneity of learning groups and their performance. Homogeneous groups are additive in their understanding of content and mutual co-operation in the area of learning performance. This means that the learning content can be understood more uniformly or, if it is not understood, can be taught more uniformly using other methods or materials. Homogeneous groups are more willing to provide help for others and thus carry out an independent process to adapt to the learning level of the whole group. The teacher is less in the position of being the sole mediator and can limit themselves to guiding methods during learning phases.

Heterogeneous groups are considered to be multiplicative in successful collaborations, as they can draw other

group members along from different prior talents and learning achievements and increase learning ability. At the same time, these constellations are also more susceptible to disruption, which can lead to the failure of learning activities and resignation on the part of teachers in the event of rivalries, irreconcilable differences, etc.<sup>[35]</sup>. Therefore, the target group definition in adult education with migrants is fundamentally determinant in this teaching area and should include a possible homogenisation of teaching groups if this is possible<sup>[36]</sup>.

The cultural position of the participants is also a determining factor in the composition of groups and the composition of teaching staff. If one considers the legal provisions on compulsory participation in integration courses, these provisions sometimes clash with the personal views of adult migrants. This has to do with the awareness and perception of the subliminal educational concept that such measures harbour. Adults see themselves as mature and reject this from the outset and are therefore resistant to learning, which undermines and questions the success of measures<sup>[37]</sup>. Teachers may first have to overcome this resistance, which is not actually part of their job description. In addition, this can quickly channel teachers' frustration into an area that leads to a generalised and sweeping attitude towards migrants in teaching-learning situations.

If there is also a strong cultural and social influence on the participants, such as strongly patriarchal structures, this can have a very negative effect on a female teacher. Such constellations may sound too generalised at first, but they are a reality and should be taken into account in group constellations and the selection of teachers in order to achieve successful integration work. The determining factor here is the clear communication of content that demonstrates that the host society is definitely different from the other culture without judgment.

Beyond statistical significance, the practical interpretation of the findings is essential. The results suggest that intrinsic motivation plays a crucial role in sustaining engagement among adult educators working with migrants, particularly among women. This implies that workplace policies should not only acknowledge gender-related differences but also create environments that strengthen intrinsic motivators, such as autonomy, recognition, and meaningful participation. Likewise, training programs should focus on

developing stress management and intercultural competencies that directly address the most salient stressors identified in the analysis.

On the basis of the problem factors described, clear requirements for the necessary resources emerge from the model. These concern both the individual teacher and the organisational framework in which this work takes place. Cramer et al.<sup>[6]</sup> mention here:

- Professional self-efficacy
- Classroom Management
- Professional knowledge
- Collegial support
- Appreciation from management, pupils and social environment

Basic training structures are therefore also required in adult education, which include content knowledge, use of methods and a certification framework or recognised qualification.

## 6. Conclusions

This research analysed which stressors have a gender-specific effect on adult and continuing education employees working with migrants. It was also investigated whether there are differences between men and women in terms of intrinsic motivation, which also has a different impact on stress resilience, and whether different coping strategies exist for men and women. The research project was quantitative in nature and included an explorative data analysis of an online questionnaire completed by 129 women and 125 men.

The hypothesis testing confirmed that there is a significant difference between men and women in terms of intrinsic motivation. Furthermore, it was confirmed that the relationship between intrinsic motivation and stress symptoms is significantly moderated by gender. There were no significant differences between the two genders in terms of coping strategies, thus hypotheses related to coping, positive thinking, alcohol and cigarette consumption, and social support could not be confirmed. These results align with medical psychology approaches that consider evolutionary determinants of human behavior as stable constants.

Further interviews with the target group could provide an up-to-date overview of which measures in the institutions

make working with migrants easier and which innovative methods are used by employees to avoid or cope with stress.

Studies in the migrant sector are also important: how do people deal with wanting further training but not getting it or having it imposed on them?

Regardless of the topic, the professionalisation of adult education should continue to be developed in a practical manner. It is necessary not only to address the various theories in this field, but also to provide employees with guidelines for their daily work with migrants. Social pedagogy is leading the way: Despite the various theories, the individual case always counts and the intervention must always start with the subject. In adult and continuing education, the practitioners are the learning facilitators who must inspire the recipients of their work with enthusiasm for the respective topic.

From a practical standpoint, the statistical results highlight the need for more structured institutional support. Organizations involved in adult education with migrants should translate these findings into concrete workplace strategies,

for instance, offering gender-sensitive supervision, targeted professional development, and stress-prevention measures. Although no significant gender differences were found in coping strategies, the observed variations in intrinsic motivation underline the importance of differentiated approaches in staff training and workplace design.

Political recommendations for action can be derived from the practical implications. Policy-makers and funding bodies must push for the professionalization of adult education in migration work, ensuring that employees, including volunteers, receive certified academic training that covers content knowledge, methodology and cultural competence. It also seems expedient to implement gender-specific workplace design. Given the difference in how men perceive pressure and women perceive interest/freedom of choice in motivation, institutions must design support structures that address gender-specific stressors. On the one hand, this includes reducing the perceived stress caused by administrative work, which tends to be more significant for men. On the other hand, it is desirable to increase the perceived freedom and interest in the working environment, which in turn is more significant for women. Furthermore, it is important to ensure sufficient resources and support structures. Policy must ensure an appropriate staffing and resource model for educational projects, including regular collegial support

and a functional workplace environment to mitigate burnout symptoms prevalent in helping professions.

## Author Contributions

Both authors contributed equally to the conception, design, data collection, analysis, and writing of this study. Both authors have read and agreed to the published version of the manuscript.

## Funding

This work received no external funding.

## Institutional Review Board Statement

The research was conducted in compliance with the ethical guidelines of the St. Elizabeth University of Health

and Social Sciences, Bratislava.

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

## Data Availability Statement

The data used in this study are available from the corresponding author upon reasonable request.

## Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

## Appendix A

**Table A1.** Questionnaire

No.	Question Text	Metrics
1	I enjoy working in adult education with people with a history of migration.	KIM (interest)
2	I find the job very interesting.	
3	The activity is entertaining.	
4	I am satisfied with my work performance.	KIM (perceived competence)
5	I am skilful at work.	
6	I think I'm pretty good at my job.	
7	I can control my own work.	KIM (perceived freedom of choice)
8	I can choose how I proceed with the activity.	
9	I can work the way I want to work.	
10	I feel under pressure at work.	KIM (print)
11	I feel tense when I'm working.	
12	I had doubts as to whether I would be able to do this job well.	
13	I have warm feelings for people who are less well off than me.	IRI
14	Things touch me deeply, even if I only observe them.	
15	If someone else's behaviour seems strange to me, I try to put myself in their shoes for a while.	
16	Before I criticise someone, I try to imagine how I would feel in their shoes.	
17	I sleep badly.	SCI stress symptoms
18	I often suffer from stomach pressure or abdominal pain.	
19	I often have the feeling of a lump in my throat.	
20	I often suffer from headaches.	
21	I often think about my life.	
22	I am often sad.	
23	I often don't feel like doing anything.	
24	I have lost or gained a lot of weight (more than 5kg).	
25	My desire for sex has decreased significantly.	
26	I often withdraw into myself and become so absorbed that I no longer notice anything.	
27	I have twitches in my face that I can't control.	
28	I find it hard to concentrate.	
29	I have nightmares	



Table A1. *Cont.*

No.	Question Text	Metrics
30	I tell myself that stress and pressure also have their good sides.	SCI Positive thinking
31	I see stress and pressure as a positive challenge.	
32	When I'm under stress and pressure, I simply concentrate on the positive.	
33	Even when I'm under a lot of pressure, I don't lose my sense of humour.	
34	I do everything I can to avoid stress in the first place.	SCI Active stress management
35	I think about how I can avoid time pressure beforehand.	
36	I try to avoid stress in advance.	
37	In the case of stress and pressure, I specifically eliminate the causes.	
38	When I get under pressure, I have people to help me.	SCI Social support
39	No matter how bad things get, I have good friends I can always rely on.	
40	When I feel overwhelmed, there are people who help me to rebuild.	
41	When I'm stressed and under pressure, I find support from my partner or a good friend.	
42	When everything gets too much for me, I sometimes reach for the bottle.	SCI Alcohol and cigarette consumption
43	When I'm stressed and under pressure, I relax in the evening with a glass of wine or a beer.	
44	No matter how great the stress becomes, I would never turn to alcohol or cigarettes because of stress.	
45	When I'm under too much stress, I smoke a cigarette.	
46	Classroom disruptions	Events
47	Cultural differences of the participants	
48	Health problems of the participants	
49	Learning resistance of the participants	
50	Participants' expectations and requirements	
51	Cooperation with authorities and institutions	
52	Budgeting of educational projects	
53	Equipment of the workplace	
54	Administrative expenses	
55	Do you work full-time or on a voluntary basis with people with a history of migration?	Socio-demographics
56	How old are you?	

## References

- [1] Hammerschmidt, P., Pötter, N., Stecklina, A., 2021. The Long Summer of Migration: The Opportunities for Refugees to Participate and the Practice of Social Work. Beltz Verlagsgruppe: Weinheim, Germany. (in German)
- [2] Immerfall, S., 2018. Europa-Political Unification Project and Social Development: An Introduction, 2nd ed. Springer: Wiesbaden, Germany. (in German)
- [3] Grasse, A., Grimm, M., 2019. Populists in government. Italy after the parliamentary elections of March 2018. In: Brinkmann, H.U., Panreck, I.-C. (Eds.). Right-Wing Populism in Immigrant Societies: The Political Debate Surrounding Migration And Integration. Springer: Wiesbaden, Germany. pp. 315–350. (in German)
- [4] Ohliger, R., 2022. A turning Point in Refugee and Asylum Policy in 2022? Recommendations for Action for Learning Systems. Robert-Bosch-Stiftung: Stuttgart, Germany. (in German)
- [5] Derntl, B., 2018. Equal or unequal? Gender differences regarding stress and stress management. In: Gorr, C., Bauer, M.C. (Eds.). What Drives Us? Motivation and Frustration from a Brain Research Perspective. Springer: Berlin, Germany. pp. 129–142. (in German)
- [6] Cramer, C., Friedrich, A., Merk, P., 2018. Stress and strain in the teaching profession: Overview of theories, variables and results in an integrative framework model. *Bildungsforschung*, 2018(1), 1–23. DOI: <https://doi.org/10.25656/01:16575> (in German)
- [7] Klöckner, J., 2016. Volunteer Work in Non-Profit Organizations: A Comparative Study of Welfare and Migrant Organizations. Springer: Wiesbaden, Germany. DOI: <https://doi.org/10.1007/978-3-658-10422-1> (in German)
- [8] Evers, T., Kay, R., Leneis, S., et al., 2019. Evaluation of Work with Refugees in Upper Bavaria: Results of the Online Survey among Volunteer Helpers. Das Zentrum Flucht und Migration (ZFM): Eichstätt, Germany. Available from: <https://edoc.ku.de/id/eprint/23035/> (cited 10 June 2025). (in German)
- [9] Jungk, S., Morrin, S., 2017. Integration through Volunteering. Key Findings, Positions of the Paritätische Wohlfahrtsverband (a German Welfare Association), and Practical Tips from the Study “Volunteering with Refugees”. Der Paritätische Gesamtverband e.V.: Berlin, Germany. Available from: [https://www.der-paritaetische.de/fileadmin/user\\_upload/Schwerpunkte/Migration/Ehrenamt/Integration\\_durch\\_Engagement\\_Paritaet.pdf](https://www.der-paritaetische.de/fileadmin/user_upload/Schwerpunkte/Migration/Ehrenamt/Integration_durch_Engagement_Paritaet.pdf) (cited 10 June 2025). (in German)
- [10] Jungk, S., Morrin, S., 2017. Integration through Volunteering: Final Report: A Practice-Based Research Project on the Resources, Expectations, and Experi-

- ences of volunteer Helpers in Educational Settings. Der Paritätische Gesamtverband e.V.: Berlin, Germany. Available from: [https://www.der-paritaetische.de/fileadmin/user\\_upload/Schwerpunkte/Migration/Ehrenamt/Integration\\_durch\\_Engagement\\_Studie\\_KHSB.pdf](https://www.der-paritaetische.de/fileadmin/user_upload/Schwerpunkte/Migration/Ehrenamt/Integration_durch_Engagement_Studie_KHSB.pdf) (cited 10 June 2025). (in German)
- [11] Karakayali, S., Kleist, J.O., 2014. EFA-Studie: Structures and Motives of Voluntary Refugee Work (EFA) 1st Research Report: Results of an Exploratory Survey from November/December 2014 in Germany. Available from: [https://www.academia.edu/13444732/Strukturen\\_und\\_Motive\\_der\\_ehrenamtlichen\\_Fluechtlings-arbeit\\_EFA\\_in\\_Deutschland](https://www.academia.edu/13444732/Strukturen_und_Motive_der_ehrenamtlichen_Fluechtlings-arbeit_EFA_in_Deutschland) (cited 21 February 2024). (in German)
- [12] Karakayali, S., Kleist, J.O., 2015. EFA Study 2: Structures and Motives of Volunteer Refugee Work (EFA) in Germany 2nd Research Report: Results of an Exploratory Survey from November/December 2015. Available from: [https://www.fluechtlingsrat-brandenburg.de/wp-content/uploads/2016/08/Studie\\_EFA\\_2\\_BIM\\_11082016\\_VOE.pdf?utm\\_source](https://www.fluechtlingsrat-brandenburg.de/wp-content/uploads/2016/08/Studie_EFA_2_BIM_11082016_VOE.pdf?utm_source) (cited 21 February 2024). (in German)
- [13] Bohn, I., Aliche, T., 2016. How Can the Integration of Refugees Succeed so that Public Opinion Doesn't Turn Against Them? Wochenschau-Verlag: Frankfurt/Main, Germany. (in German)
- [14] Aumüller, J., Daphi, P., Biesenka, C., 2015. The Reception of Refugees in the German Federal States and Municipalities: Official Practice and Civil Society Engagement. Robert-Bosch-Stiftung: Stuttgart, Germany. (in German)
- [15] Bender, E., Schaper, N., Seifert, A., 2018. Computer science teachers' professional beliefs and motivational orientations. *Journal for Educational Research Online*. 10(1), 70–99. DOI: <https://doi.org/10.25656/01:15414> (in German)
- [16] Beer, G., Beer, R., Ebenberger, A., Potzmader, P., 2020. Perceived stress and coping strategies in Master's programs for primary education: A quantitative and qualitative study of teacher education students during their studies and in the initial phase of their careers. Available from: [https://www.researchgate.net/publication/373989080\\_Belastungsempfinden\\_und\\_Bewaltigungsstrategien\\_im\\_Masterstudium\\_Primarstufe](https://www.researchgate.net/publication/373989080_Belastungsempfinden_und_Bewaltigungsstrategien_im_Masterstudium_Primarstufe) (cited 21 February 2024). (in German)
- [17] Troesch, L.M., Bauer, C.E., 2019. Teaching as a second career: challenges, coping strategies and career exit. *Zeitschrift für Bildungsforschung*. 9(3), 289–307. DOI: <https://doi.org/10.1007/s35834-019-00253-3> (in German)
- [18] Cancio, E.J., Larsen, R., Mathur, S.R., et al., 2018. Special Education Teacher Stress: Coping Strategies. *Education and Treatment of Children*. 41(4), 457–481. DOI: <https://doi.org/10.1353/etc.2018.0025>
- [19] Stein, P., 2019. Research Design for Quantitative Social Research. In: Baur, N., Blasius, J. (Eds.). *Handbook of Methods in Empirical Social Research*, 2nd ed. Springer: Wiesbaden, Germany. pp. 125–142. DOI: [https://doi.org/10.1007/978-3-658-21308-4\\_8](https://doi.org/10.1007/978-3-658-21308-4_8) (in German)
- [20] Wilde, M., Bätz, K., Kovaleva, A., et al., 2009. Testing a short scale of intrinsic motivation. *Zeitschrift für Didaktik der Naturwissenschaften*. 31(15), 31–45. DOI: <https://doi.org/10.25656/01:31663> (in German)
- [21] Deci, E.L., Ryan, R.M., 2000. Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*. 25(1), 54–67. DOI: <https://doi.org/10.1006/ceps.1999.1020>
- [22] Paulus, C., 2016. Saarbrücken Personality Questionnaire on Empathy (SPF-IRI): Based on the Interpersonal Reactivity Index (IRI), V 7.0. Available from: [http://bildungswissenschaften.uni-saarland.de/personal/Paulus/empathy/SPF\\_SE.html](http://bildungswissenschaften.uni-saarland.de/personal/Paulus/empathy/SPF_SE.html) (cited 2 September 2024). (in German)
- [23] Davis, M.H., 1983. Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*. 44(1), 113–126. DOI: <https://doi.org/10.1037/0022-3514.44.1.113>
- [24] Satow, L., 2012. Stress and Coping Inventory (SCI): Complete test and scale documentation. Available from: <http://www.dr-satow.de/tests/stress-und-coping-inventar/> (cited 30 September 2024). (in German)
- [25] Gacio, N., 2020. Understanding Quantitative Data in Educational Research. Sage: London, UK.
- [26] Treibel, A., 2006. Introduction to Contemporary Sociological Theories, 7th ed. VS Verlag für Sozialwissenschaften: Wiesbaden, Germany. (in German)
- [27] Brandstätter, V., Schüller, J., Puca, R.M., et al., 2018. Research approaches and theories of emotion. In: Puca, R.M. (Ed.). *Motivation and Emotion: General Psychology for Bachelor Students*, 2nd ed. Springer: Berlin, Germany. DOI: [https://doi.org/10.1007/978-3-662-56685-5\\_12](https://doi.org/10.1007/978-3-662-56685-5_12) (in German)
- [28] Sauer, B., 2013. Gender and Sex. In: Scherr, A. (Eds.). *Sociological Basics: An Introduction for Educational and Social Professions*, 2nd ed. Springer: Wiesbaden, Germany. pp. 75–81. DOI: [https://doi.org/10.1007/978-3-531-19879-8\\_8](https://doi.org/10.1007/978-3-531-19879-8_8) (in German)
- [29] Fujita, F., Diener, E., Sandvik, E., 1991. Gender differences in negative affect and well-being: The case for emotional intensity. *Journal of Personality and Social Psychology*. 61(3), 427–434. DOI: <https://doi.org/10.1037/0022-3514.61.3.427>
- [30] Fischer, A.H., Manstead, A.S.R., 2020. The relation between gender and emotion in different cultures. In: Fischer, A.H. (Ed.). *Emotion and Gender: Social Psychological Perspectives*. Cambridge University Press: London, UK. pp. 71–96.
- [31] Hess, U., Sénecal, S., Kirouac, G., et al., 2020.

- Emotional expressivity in men and women: Stereotypes and self-perceptions. *Cognition and Emotion*. 14(5), 609–642. DOI: <https://doi.org/10.1080/02699930050117648>
- [32] Rheinberg, F., Engeser, P., 2019. Intrinsische Motivation und Flow-Erleben. In: Heckhausen, J., Heckhausen, H. (eds.). *Motivation und Handeln*, 5th ed. Springer: Berlin, Germany. pp. 424–450. DOI: [https://doi.org/10.1007/978-3-662-53927-9\\_14](https://doi.org/10.1007/978-3-662-53927-9_14) (in German)
- [33] VBW, 2014. Psychological Stress and Burnout among Educational Staff: Recommendations for Competence and Organizational Development. Expert Report. Waxmann: Münster, Germany. DOI: <https://doi.org/10.25656/01:14004> (in German)
- [34] Sisolefsky, F., Rana, M., Herzberg, P.Y., 2017. Personality, Burnout, and Work Engagement: An Introduction for Psychotherapists and Members of At-Risk Professions. Springer: Wiesbaden, Germany. DOI: <https://doi.org/10.1007/978-3-658-16726-4> (in German)
- [35] Szameitat, A., Strobel-Dümer, C., Tippelt, R., 2018. Networking in continuing education. In: Tippelt, A., von Hippel, A. (Eds.). *Handbook of Adult Education/Continuing Education*, 6th ed. Springer: Wiesbaden, Germany. pp. 587–604. DOI: [https://doi.org/10.1007/978-3-531-19979-5\\_29](https://doi.org/10.1007/978-3-531-19979-5_29) (in German)
- [36] Fischer, V., 2018. Adult education in the context of migration. In: Tippelt, A., von Hippel, A. (Eds.). *Handbook of Adult Education/Continuing Education*, 6th ed. Springer: Wiesbaden, Germany. pp. 1279–1296. DOI: [https://doi.org/10.1007/978-3-531-19979-5\\_64](https://doi.org/10.1007/978-3-531-19979-5_64) (in German)
- [37] Meueler, E., 2018. Didactics of adult education – continuing education as an open project. In: Tippelt, A., von Hippel, A. (Eds.). *Handbook of Adult Education/Continuing Education*, 6th ed. Springer: Wiesbaden, Germany. pp. 973–987. DOI: [https://doi.org/10.1007/978-3-531-91834-1\\_61](https://doi.org/10.1007/978-3-531-91834-1_61) (in German)