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Labor market status (being inactive, unemployed, or employed) and psychosocial characteristics of Ukrainian refugees at their early stage of being refugees in two neighboring countries, Poland and Hungary

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Abstract

Background Refugee status poses a significant burden on mental health, largely because of existential hardships. Moreover, mental health problems hinder access to employment. Supporting refugees' entry into the labor market is a common element of local integration policies and is shaped by structural conditions. However, beyond environmental and regulatory factors, individual variables—such as a willingness to accept any job (submissiveness) or caregiving responsibilities—also influence labor market participation.

Methods In our study, which was conducted in late 2022 with 400 Ukrainian refugees in Poland and 407 in Hungary—at an early stage of their displacement—we applied a quantitative cross-sectional survey design with stratified sampling and a random-route procedure to obtain samples with features of representativeness.

Results In both samples, labor market participation was associated with lower depressive symptoms, and the proportion of active individuals was similar between the two samples. Submissiveness was not strongly or consistently correlated with depressive symptoms but was positively correlated with activity levels in both countries. Among the active individuals, the proportion of employed individuals—especially those with caregiving responsibilities—was greater in Poland. We attribute this to structural differences in family support and education characteristics. Our findings are interpreted through Elster's Rational Choice Theory, which explains behavior through perceived justification and individual preferences.

Conclusions The study revealed a relationship between the labor market status of Ukrainian refugees residing in Poland or Hungary and their mental health, knowledge of support institutions, and submissiveness in the labor market. In both countries, refugees who were inactive were more likely to feel depressed. While in Hungary, awareness of support did not favor labor market participation, in Poland, the correlation between awareness of support and employed labor market status was positive.

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In Poland and Hungary, a high level of submissiveness was a factor that favored labor market participation, whereas having dependents functioned differently in the two countries. In contrast, in Poland, a high level of submissiveness was a positive factor of labor market participation, whereas in Hungary, it was a negative factor of having employed status.

Keywords Ukrainian refugees, Labor market, Mental health, Cross-cultural design, Philosophy of rational choice

Text box 1. Contributions to the literature

- This article fills a gap in the literature regarding the relationship between the submissiveness of refugees in the labor market and their mental health
- The article reveals the early experiences of Ukrainian refugees in Poland and Hungary, which are often difficult to capture and seldom discussed in the empirical literature
- The results show an association between employment and better mental health among refugees, which provides several directions for policy and practice implications in designing a holistic support system that fosters sustainable refugee integration: offering vocational and language courses, childcare provisions and flexible work arrangements

Background

Our study, which aims to analyze particular labor market and health-related phenomena from different research perspectives, was performed with the triangulation of researchers [1], including scientists from disciplines such as psychology, sociology, economy, and philosophy. We assessed the sociodemographic background characteristics of war refugees, their labor market situation, their attitudes toward work, and their mental health from the perspective of depressive symptoms.

Refugees' employment is not only positively correlated with their mental health but also desirable from the perspective of the host country's labor market if there is not enough domestic labor force available.

Lai et al. [2] summarized 72 quantitative studies and concluded that paid work has a positive effect on the mental health of refugees. For example, depressive states are more severe in unemployed refugees [3]. Refugees generally do not worsen the prospects of domestic workers, and in fact, they supplement the labor supply, especially if they stimulate the economy through additional consumption [4].

The Ukrainian war brought many people to the European labor market, and among the host countries, Poland and Hungary, which are neighbors of Ukraine, received a particularly high number of refugees. We look for background factors that distinguish inactive individuals from active individuals in the labor market in the two samples (refugees approached in Poland and Hungary) and unemployed individuals from employed individuals within the active group.

We highlight that although there are some common factors that have a similar relationship with activity in the two samples (for example, a submissive attitude toward imperfect work is positively related to being active in the labor market), there are also factors (for example, being responsible for somebody else) that have completely different roles in the two samples. The main reason for this difference may be that, in Poland, there are completely different opportunities for children to be financially supported and educated; however, in Hungary, financial support is limited, and many children attend Ukrainian online schools from their homes because of insurmountable language difficulties in integrated education [5]. The consequences of the different opportunities in each country for children's support and education we try to explain through choices made by their parents, who try to maximize their utility on the basis of preferences, available opportunities and information offered in a particular country of stay; therefore, we apply the theoretical framework of Rational Choice Theory, especially the wing developed by philosopher Jon Elster [6], to explain the differences in our study findings.

Theoretically, our paper contributes to the ongoing discourse on whether submissive behavior among refugees serves as a protective or detrimental factor for mental health. A closely related concern lies in identifying effective forms of assistance for refugees—whether through support in job seeking or via direct financial aid. Our study addresses a notable gap in the literature by offering empirical evidence from the early stages of the refugee experience, a period that is seldom captured in existing research. Moreover, the cross-cultural design of our work enables a comparative perspective on how support systems respond to local specificities.

Literature review

The main policy differences between Poland and Hungary

Both countries have provided urgent help since 2022 (including basic information, first aid such as hot meals, medical help, and preschool and primary education allowances for refugees' children), and both countries have introduced integration measures, such as simplified access to employment [7]. The Polish government included additional steps to help refugees in the Act on Assistance to Ukrainian Citizens in Connection with the Armed Conflict in that country [8]. This law provided several things, such as allowing an 18-month stay in Poland, providing an individual identification (PESEL) number and a trusted digital profile, helping with finding a place to stay, providing meals, and helping with

transportation to those places. It also provides access to healthcare and social benefits, including child benefits such as the 500 + Polish Zlotys (~ 117 Euros per month per each child program), "good start" support, subsidies for childcare, and a one-time payment of 300 PLN (~ 70 Euros) per person for living expenses. Additionally, the PESEL number helped people to find work, open a bank account, register a Polish phone number, register a legal company, and receive support from public institutions on an equal footing with Polish citizens [7].

Hungary implemented the EU's Temporary Protection Directive by Government Decree [9], enabling Ukrainian arrivals to obtain temporary protection status, which granted immediate access to housing, healthcare, schooling, employment, and freedom of movement within the EU. The government subsidized temporary accommodations for refugees. Refugees under temporary protection were entitled to free healthcare, including primary care, examinations, hospital treatment, and even care for wounded Ukrainian soldiers in Hungarian hospitals. The state established a dedicated medical transit hospital at Honvéd Kórház for arrivals and returnees and offered a free hotline for medical care requests for children. Ukrainians—even those without Hungarian language fluency—could have worked in Hungary if they had registered under temporary protection. Employment in certain professions (128 in-demand fields) required only simple notification. Employers hiring Ukrainian refugees may have received financial support—including monthly allowances (~ 150 Euros per refugee and 30 Euros per child) to cover housing and travel costs, for up to 12 months. Major NGOs (e.g., Caritas Hungary, Hungarian Interchurch Aid, and the Hungarian Helsinki Committee) have played key roles in distributing aid, legal counsel, community services, psychological help, language training, and assistance in navigating administrative systems [10].

The greatest difference in terms of financial support was that refugees, who ask for and obtain temporary protection status in Poland, have received extended and regular monthly support for their children [11], even if they have started working, whereas refugees in Hungary have received modest but regular monthly support for themselves and for their children, as long as they do not start working.

Mental health and the ability to work among refugees

The relationship between refugees' mental health and their labor market integration is well documented, with research highlighting the impact of war-related trauma, forced displacement, and structural conditions in host countries. Compared with the general population, refugees experience significantly higher rates of posttraumatic stress disorder (PTSD), anxiety, and depression, particularly during the initial resettlement period, when past trauma coincides with ongoing uncertainty [12, 13]. These psychological burdens directly impair employability and workplace stability [14].

Empirical studies consistently demonstrate a bidirectional link between mental health and employment: poor mental health reduces the likelihood of securing and maintaining work, whereas unemployment in turn exacerbates psychological distress and PTSD symptoms [2, 15]. The mental health benefits of employment are not limited to financial stability; they also derive from what Jahoda [16] termed the "latent functions" of work—time structure, social relationships, collective purpose, status, and activity—which have all been shown to predict better mental health [17].

However, the quality and relevance of employment are equally important. Even higher educational attainment may not protect against psychological distress if qualifications are not recognized [18, 19].

For highly educated refugees, underemployment can be detrimental, leading to dissatisfaction, reduced self-esteem, and poorer mental health outcomes [20]. Language proficiency and social integration also play crucial roles in employability [21].

Structural barriers—such as insecure legal status, inadequate housing, and limited access to services—further compound the challenges refugees face and adversely affect both their psychological well-being and economic integration [22, 23].

Children's participation in the education system and its impact on adults' labor market status

Without sufficient institutional support, taking care of dependents may limit the person's possibility of taking up employment, despite the appropriate predispositions and willingness to work. This applies particularly to women with children [24–26].

Excluding children from the host country's education system—and the challenges of participating in it—can hinder adult refugees from finding employment, as childcare demands complicate job seeking. In Poland and Hungary, refugees from Ukraine were granted the right to education, but this was met with many difficulties characterizing countries with no experience in integrating foreigners (e.g., insufficient number of teachers with experience in teaching foreigners, lack of detailed guidelines on the organization of preparatory classes and additional language classes), which resulted in frequent dropouts [27–30].

As full-scale Russian armed aggression against Ukraine started in 2022, both Poland and Hungary allowed compulsory schooling to be fulfilled within the Ukrainian remote education system [27, 31]. This solution could have many benefits—both for the host country (efficiency

of the education system) and for migrants (no need to travel to distant schools and the possibility of maintaining ties with the culture of their home country). However, it has many disadvantages, including the lack of control of it by the host country, which in effect means that some students do not fulfill their obligations and thus do not acquire any language skills. Moreover, the participation of children exclusively in the Ukrainian education system creates additional difficulties in adapting to life in the host country [31], not only for children but also for adult immigrants, who cannot leave small children unattended [24]. Kubik's research [31] shows that although parents' decisions to enroll their children exclusively in the Ukrainian distance learning system may be justified by their intention to return to Ukraine after the end of the war, they may also be a 'denial' of the situation in which they find themselves and may stem from a desire to maintain the belief that a return to their home country will be possible in the future.

The results of studies conducted in Germany, the United Kingdom and Poland show that the educational strategies of Ukrainian refugees are conditioned by their orientation toward remaining in the host country. The orientation toward return, as well as uncertainty about remaining, more often prompts immigrants to enroll their children in the Ukrainian remote education system, and the educational situation of children in the country of residence can modify migration plans [32].

We consider the issue of children remaining outside the host country's education system to be worth addressing, as we suspect that the need to provide childcare may be an important factor differentiating the professional activity strategies of refugees in Poland and Hungary, which we discuss later in this article. However, we present this as a hypothesis requiring additional research.

The complex impact of submissiveness on refugee employment

Submissiveness—refugees' willingness to accept jobs below their qualifications or preferences—is a common but complex strategy in labor market integration. Economic insecurity drives labor submissiveness, as refugees often accept low-quality jobs owing to urgent financial needs, unrecognized qualifications, and limited support.

While it often facilitates early job access, especially in informal or low-skilled roles [33, 34], helps reduce extreme economic hardship, restore dignity, and provide a foothold for future advancement [35], it can lead to long-term underemployment and hinder personal development. Studies from Turkey, Lebanon, Poland, and the USA have shown that long-term instability increases exploitation risk and hampers sociocultural integration [36–38].

Research shows that this compromise comes with psychological costs. Refugees in poor-quality jobs frequently report decreased well-being, high stress, low self-esteem, and mental health challenges, including depression and anxiety disorders [39–41]. Although submissiveness is sometimes treated as a personality trait, a growing number of studies have pointed to its structural and contextual determinants [42], showing that such behaviors among refugees are primarily adaptive responses to the challenges of displacement, discrimination, and integration into new societies [43–47]. For example, studies on Ukrainian and Syrian refugees have shown that submissiveness is often associated with situational factors such as perceived threats, a lack of resources, and the need to navigate an unfamiliar social environment and labor market [43–45, 48]. These behaviors are not static but vary depending on the context, available support, and individual agency. A study by Walawender et al. [43] emphasized that submissiveness in refugees should not be interpreted as a permanent predisposition but rather as an adaptive response, especially in situations of a lack of alternatives, low self-esteem, and limited influence over the conditions of employment. Our manuscript emphasizes the latter (context-dependent strategy) and clearly distinguishes it from personality traits such as compliance.

In conclusion, submissiveness in refugee job seeking is both a pragmatic response to structural constraints and a source of long-term vulnerability. While it may facilitate early labor market entry and short-term financial stability, it often involves significant psychological costs, limits career development, and reinforces systemic inequities. A more just and effective integration framework must recognize these complexities—acknowledging refugees' resilience without normalizing the sacrifices they are often forced to make.

The adequacy of the application of the submissiveness strategy may also depend on the refugee support system in a given country: if financial support is low, which urges employment, we can expect greater submissiveness. However, a support system alone, simply because it provides a higher level of financial support, does not necessarily strengthen the development of employee ambitions that align with their real personal capacities. When assistance lacks clear progression toward self-sufficiency, it may foster long-term dependency. Poorly designed programs can weaken agency, leading to passivity and learned helplessness. Harrell-Bond [49] critiqued aid frameworks that render refugees passive recipients, a dynamic still observed in recent fieldwork [50]. Refugees are often excluded from decision-making, reinforcing hierarchies, and play a passive role in society [51].

Rational choice theory

Rational Choice Theory's (RCT) philosophical lineage traces back to Aristotle, who discussed rational choice (*prohairesis*) in terms of reasoned decision-making [52,

53] through the utilitarianism of Bentham and Beccaria, emphasizing individual choice and the pursuit of self-interest, which was formalized in the late 19th and early 20th centuries [54–57]. The main idea behind the theory is that people make choices to obtain the greatest benefit on the basis of what they like and what they know. This idea was applied by political scientists and sociologists [58–60].

Despite the criticism of RCT for its assumption of perfect rationality and methodological individualism [61, 62], it remains influential, with ongoing debates about its explanatory power, limitations, and adaptations across disciplines [57, 58, 62–64].

Jon Elster is a major thinker in the development and discussion of RCT, especially in the fields of philosophy and social sciences. He separates rationality into two types: a "thin" theory, which focuses on the traditional economist's model of preference maximization within feasible sets, and a "broad" theory, which also considers whether those preferences and beliefs are rational themselves. Elster prefers to interpret actions on the basis of intentional explanations (reasons and preferences) rather than focusing on functional explanations [65] and strongly supports the idea of methodological individualism, which means explaining social behaviors by looking at individual actions. He also promotes the use of "social mechanisms"—specific, often psychological, processes that connect individual decisions to larger social outcomes [66].

We apply RCT as a useful theory that explains refugee behaviors by showing how they weigh risks, benefits, and options to maximize safety and well-being in difficult conditions. This theory is especially useful for analyzing the decision-making process in situations in which people have alternatives to choose from (such as the ability to choose if their children participate in the home country or host country compulsory education system). This is in line with previous research applying RCT to explain the actions of refugees, such as why some Rohingya refugees did not wait for status determination in a temporary camp but decided to be smuggled by a third party [67].

Methods

Research questions and hypotheses

The following research questions were asked for the purpose of the article and research hypotheses adopted:

Research Question 1 (RQ1):
What is the relationship between labor market status (inactive/unemployed vs. employed) and mental health among refugees?
Hypothesis 1 (H1):
Active participation in the labor market, particularly through employment, is associated with better mental health outcomes.

Research Question 2 (RQ2):
How is there knowledge about available sources of assistance related to labor market activity?
Hypothesis a (H2a):
Greater awareness of where to seek help is positively associated with labor market activity.
Hypothesis b (H2b):
Greater awareness of where to seek help is negatively associated with labor market activity.
Research Question 3 (RQ3):
Among refugees who express a desire to work, how is submissiveness (i.e., willingness to accept suboptimal or mismatched employment) related to mental health?
Hypothesis a (H3a):
A higher degree of submissiveness is positively associated with mental health.
Hypothesis b (H3b):
A higher degree of submissiveness is negatively associated with mental health.
Research Question 4 (RQ4):
What are the shared and context-specific patterns in Poland and Hungary in the relationships between labor market status and sociodemographic and psychosocial variables?
Hypothesis 4 (H4):
The labor market engagement of Ukrainian refugees is expected to follow different patterns in Poland than in Hungary.

Method of data collection and sample

A study was conducted to understand the situation of Ukrainian refugees via a survey. It took place over one month, from November 21 to December 20, 2022, in Poland and Hungary. The survey was performed as face–to–face interviews via computer-assisted personal interviews (CAPIs). The interviewer picked the people to talk on the basis of instructions and gave them a mobile device with the survey tool already on it. The answers were recorded automatically in a system, so there was no need to write them down by hand. Each person completed the questionnaire on their own.

Our study included people from all regions of Ukraine, including the occupied Autonomous Republic of Crimea and the oblasts of Luhansk and Donetsk.

The people we included in our study met these conditions: (1) they were refugees who arrived in Poland or Hungary after Russia invaded Ukraine on the 24th of February, 2022; (2) they were residents of Ukraine before coming to Poland or Hungary; and (3) they were adults, meaning they were at least 18 years old.

We interviewed a total of 807 refugees, with 400 from Poland and 407 from Hungary.

The database from this data collection has been used by two other scientific studies [43, 68]; however, the focus of those studies does not overlap with the questions of this current study, since participation in the labor market has not been addressed in the former two studies.

This study was designed as a quantitative, cross-sectional survey with a comparative approach (Poland vs. Hungary).

A stratified sampling strategy combined with a random-route procedure was applied to obtain samples with features of representativeness. Although the exact structure of the refugee population was not fully known due to its dynamic nature, available demographic estimates (e.g., gender and age distributions) have been used to guide stratification.

Independent variables included sociodemographic factors (age, gender, education, having or not having dependents) and psychological factors (mental health indicators, submissiveness, and awareness of help resources). The dependent variables refer to labor market participation and employment status.

To ensure data quality, the questionnaire was piloted prior to the survey, the interviewers received training, and answers were self-completed by respondents on mobile devices via a standardized instrument available in the language of the participant. This minimized interviewer bias and eliminated manual coding errors.

Methods of data analyses

Descriptive statistics describe the demographic and key study variables within each sample. We examined the consistency of the scales via Cronbach's alpha. The normality of ordinal variables was assessed via the Shapiro–Wilk test. Since Shapiro–Wilk tests indicated that all continuous variables significantly deviated from a normal distribution (all $p < .001$), we used nonparametric Mann–Whitney U tests and Kruskal–Wallis tests to compare two samples or three groups for ordinal variables. For categorical variables, we used chi-square tests to compare two samples. Associations between variables were tested via either nonparametric Spearman's rank-order correlation (for ordinal variables) or chi-square tests (for categorical variables). To examine the predictors of labor market activity and successful employment within each group, we applied binary logistic regression analyses, which did not require normal distributions of predictor variables.

Measurements

Demographics. Data related to the social characteristics of the respondents (gender, age) and personal characteristics (highest level of completed education, not having or having dependents) were used for the purpose of the study.

Labor market status. We determined the status at the labor market by dividing the respondents into three exclusive subgroups:

- Active (employed) - those who answered "yes" to the question "Are you currently working (i.e., at the time of this study)?"
- Active (unemployed) - respondents who answered "no" for the above question and answered "definitely yes", "rather yes", and "it's hard to say" for the question "If you are not working, are you going to look for a job in the next 12 months?"
- Inactive – those who answered "no" to the question "Are you currently working (i.e., at the time of this study)"? and answered "definitely no", "rather no" for the question "If you are not working, are you going to look for a job in the next 12 months?"

Awareness of employment support institutions. Activation services awareness was measured in response to the following statement: "I know which institution in Poland/Hungary can I turn to for help in finding a job". There were 5 response options available (1—"completely disagree", 2—"rather disagree", 3—"neither agree nor disagree", 4—"rather agree", 5—"completely agree").

Awareness of financial support providers. Financial aid awareness was indicated by an answer to the following statement: "I know which institution in Poland/Hungary can I turn to obtain financial assistance".

The participants replied to the question on a 5-point Likert scale with similar alternatives mentioned above.

Submissiveness. Submissiveness was defined as a tendency to give up some job requirements or expectations (make sacrifices) to obtain or keep a job. Our scale measures the willingness to make the following sacrifices at work: working at a very inconvenient time, moving to another city, moving abroad, working on Saturday and Sunday, taking business trips at least once a week, being available 24 h a day and 7 days a week, taking additional training at one's own expense, and commuting daily to work for more than an hour. The participants replied to the questions on a 5-point Likert scale, as described above.

Mental health (depressive symptoms). To obtain information about the mental health of the participants, we used the PHQ-9 [69], which is a 9-item self-report questionnaire designed to evaluate the frequency and severity of depressive symptoms in individuals aged 18 and older. It includes questions such as how often did the respondent experience little interest or pleasure in doing things or feeling down, depressed, or hopeless in the last two weeks. Each item is rated by the respondent on a Likert scale from 0 ("not at all") to 3 ("nearly every day"). The scores for all 9 items are then summed to yield a total

score ranging from 0 to 27. Higher total scores indicate greater depression severity, with scores of 10 or above suggesting moderate depression, 15 or above indicating moderately severe depression, and scores of 20 or higher reflecting severe depression.

Results

Table 1 provides an overview of the descriptive statistics of the variables in the two samples and whether there was a significant difference in the values between the two samples. Although women made up a greater part of the sample in Hungary, the proportion of female respondents was even greater in Poland (row 1 in Table 1). The highest difference was in education: While only 7% of the sample reported the lowest level of education in Poland, 43% of the sample reported this in Hungary (row 3). Another striking difference is that a greater proportion of refugees with active labor market status in Poland were employed (row 5), and this difference comes from the employment rate of those who have dependents (row 7). Depressive symptoms of any degree occurred in a lower proportion in Poland (row 6). We also found a difference with respect to awareness either of employment support institutions or of financial support providers: refugees in Poland were more aware of support options (rows 10, 11). With respect to age (row 2), activity in the labor market (row 4), whether they have dependents or not (row 6), the employment rate of those who do not have dependents (row 8), and submissiveness (row 12), we did not detect any differences.

Hypothesis testing

> Q1. Our first research question related to the correlation between labor status and mental health, namely, that active participation in the labor market, particularly through employment, is associated with better mental health outcomes (H1).

Here, we take moderate, moderately severe, and severe depression as a whole as depression and test whether one can connect any degree of depressive symptoms to labor market status (the reason behind merging differently serious levels of depressive symptoms is that, in the severely depressed category, we could find a low number of inactive and unemployed persons in the sample approached in Poland). That is, we compared the proportion of people showing depressive symptoms in the inactive, unemployed, and employed subsamples (Table 2). Labor market position (inactive, unemployed,

Table 1 Overview of the descriptive characteristics of the two samples (Poland & Hungary, „The fate of young Ukrainians on the labor market in central Europe" project, 2022)

	Factors of comparison	Poland	Hungary	Statistics
1.	Gender (Female%)	89.8%	65.6%	$\chi2 = 67.88^{***}$ (df = 1)
2.	Age (in years)	36.78 (12.154)	37.56 (10.735)	$Z = -1.588$
3.	Education (from primary education (1) to academic degree (8))	3.93 (1.992)	2.47 (1.889)	$\chi2 = 145.845^{***}$ (df = 7)
4.	Activity on the labor market (Inactive%)	24.8%	22.9%	$\chi2 = 0.402$ (df = 1)
5.	Employment status (Employed% out of Active refugees)	58.8%	45.2%	$\chi2 = 11.354^{***}$ (df = 1)
6.	Dependents (The percentage of those who are responsible for somebody else)	41.5%	42.8%	$\chi2 = 0.130$ (df = 1)
7.	The percentage of Employed out of active refugees having dependents	61.5%	33%	$\chi2 = 22.152^{***}$ (df = 1)
8.	The percentage of Employed out of active refugees without dependents	56.6%	54.9%	$\chi2 = 0.108$ (df = 1)
9.	PHQ-9 (Depression)	7.600 (6.191) α = 0.892	9.926 (5.919) α = 0.841	$\chi2 = 13.33^{**}$ (df = 3)
10.	Awareness of employment support institutions	3.502 (0.973)	3.231 (1.162)	$Z = -3.464^{***}$
11.	Awareness of financial support providers	3.547 (0.977)	3.066 (1.231)	$Z = -5.716^{***}$
12.	Submissiveness	2.485 (0.863) α = 0.859	2.572 (0.822) α = 0.822	$Z = -1.074$

* $p < .05$; ** $p < .01$; *** $p < .001$. χ2 statistics are from chi square tests, and Z statistics are from Mann–Whitney U tests

Table 2 Signs of depression in the function of employment status (Poland & Hungary, „The fate of young Ukrainians on the labor market in central Europe" project, 2022)

Country of stay	Poland			Hungary		
Labor market status	Inactive ($n=99$)	Unemployed ($n=124$)	Employed ($n=177$)	Inactive ($n=93$)	Unemployed ($n=172$)	Employed ($n=142$)
No depression	53	79	122	32	90	86
Moderate, moderately severe or severe depression	46	45	55	61	82	56
Percentage of refugees suffering from depressive symptoms	46.6%	36.3%	31%	65.6%	47.7%	39.4%
	$\chi2=6.492$*			$\chi2=15.562$***		

* $p<.05$; ** $p<.01$; *** $p<.001$

or employed) is associated with mental health in both countries ($\chi2=6.492$, $p=.039$, and $\chi2=15.562$, $p<.001$, in Poland and Hungary, respectively). Inactive individuals have the highest rate of some degree of depression, and employed individuals have the lowest; thus, our data support H1 hypothesis for both countries.

> Q2. The second study question related to how being aware of what institutions expect to help is related to the status on the labor market. Here, we had competing expectations because there were arguments for both positive (H2a) and negative relationships (H2b), since awareness of employment support institutions is anticipated to be positively associated with labor market activity and employment. In contrast, awareness of financial support mechanisms—particularly those that are withdrawn upon entering employment—is expected to exhibit a negative association with employment outcomes.

We examined the relationship between awareness of institutional help and labor market status in two ways: first, how much persons know about the institutions they can turn to receive help in finding a job, and second, how much they know about the institutions providing financial support.

To examine differences in perceived knowledge about institutions providing employment and financial assistance across labor market status categories (inactive, unemployed, employed), two Kruskal–Wallis H tests were conducted separately for Poland and Hungary. In Poland, the Kruskal–Wallis test revealed a statistically significant difference between groups regarding knowledge of institutions that help in finding a job, $H(2)=19.88$, $p<.001$. Compared with unemployed (mean rank = 177.71) and inactive individuals (mean rank = 179.79), participants who were employed (mean rank = 228.05) reported significantly greater perceived knowledge. Similarly, there was a statistically significant difference in the perceived knowledge of institutions that provide financial assistance, $H(2)=7.72$, $p=.021$. Compared with unemployed (mean rank = 181.91) and inactive individuals (mean rank = 194.48), employed participants (mean rank = 216.89) reported higher levels of knowledge.

In Hungary, the Kruskal–Wallis test indicated no statistically significant differences among the three groups regarding knowledge of institutions helping in finding a job, $H(2)=3.69$, $p=.158$. The mean ranks were relatively close across groups: inactive (M = 223.78), unemployed (M = 197.33), and employed (M = 199.12). However, there was a significant difference in the reported knowledge of financial assistance providers, $H(2)=12.25$, $p=.002$. Inactive participants (mean rank = 240.16) reported significantly greater perceived knowledge than both unemployed (M = 192.54) and employed individuals (M = 194.20).

These findings suggest that in Poland, employment status is associated with the perceived knowledge of support institutions, with employed individuals reporting higher levels of awareness. In contrast, in Hungary, the difference was present only in the context of financial assistance, with inactive individuals showing greater perceived knowledge than other groups. Thus, for Poland, H2a was supported (a positive relationship between labor market status and help awareness); however, for Hungary, a negative relationship was true (due to H2b).

> Q3: The third research question addressed how submissiveness relates to the mental health of those refugees who would like to work. Here, we had conflicting expectations: a positive relationship between submissiveness and mental health (H3a) and a negative relationship (H3b).

To explore the relationship between submissiveness and depressive symptoms, Spearman's rank-order correlation was conducted separately for Poland and Hungary. The analysis included only active respondents.

For the refugees residing in Poland ($n=301$), a statistically significant but weak negative correlation was found between submissiveness and PHQ-9 scores (due to H3a), Spearman's $\rho = -0.115$, $p=.045$; thus, more submissive refugees reported fewer depressive symptoms. In contrast, the subsample residing in Hungary ($n=314$) showed a statistically significant but still weak but

positive correlation between submissiveness and PHQ-9 scores (Spearman's ρ = 0.203, $p < .001$), indicating—in line with Hypothesis H3b—that greater submissiveness is moderately associated with increased depressive symptoms among those participants.

Thus, correlates of submissiveness in terms of mental health do not emerge clearly and may vary across cultural or national contexts.

> Q4: The fourth research question addressed the common and specific characteristics in the pattern of relationship between labor status and sociodemographic and psychosocial variables. The labor market engagement of Ukrainian refugees was expected to follow different patterns in Poland than in Hungary (H4).

Factors contributing to active status.

We conducted binary logistic regressions to examine whether gender, age, education, number of dependents, submissiveness, awareness of job-related and financial help, and depression symptoms (PHQ-9 scores) predicted whether participants were active (1) or not (0). We conducted these analyses separately for participants residing in Poland and Hungary.

The model predicting activity in Poland ($N = 400$) was statistically significant, $\chi^2(8) = 42.27$, $p < .001$, explaining between 10.0% (Cox & Snell R^2) and 14.9% (Nagelkerke R^2) of the variance in activity status. Submissiveness was a significant positive predictor of activity status, $B = 0.71$, $SE = 0.16$, Wald(1) = 20.17, $p < .001$, OR = 2.03, suggesting that for each unit increase in submissiveness, the odds of being active increased by approximately 103%. Having dependents was also a significant predictor, $B = 0.64$, $SE = 0.26$, Wald(1) = 5.88, $p = .015$, OR = 1.90. The other predictors were not statistically significant ($ps > 0.05$).

Concerning activity in Hungary (407), the model was statistically significant, as well, $\chi^2(8) = 45.34$, $p < .001$, explaining 10.5% (Cox & Snell R^2) to 16.0% (Nagelkerke R^2) of the variance in activity status. A higher education level was significantly associated with greater odds of being active, $B = 0.25$, $SE = 0.08$, Wald(1) = 9.33, $p = .002$, OR = 1.28, and greater submissiveness was a positive predictor, $B = 0.32$, $SE = 0.16$, Wald(1) = 3.90, $p = .048$, OR = 1.38. Awareness of financial help was negatively associated with being active, $B = -0.35$, $SE = 0.12$, Wald(1) = 8.75, $p = .003$, OR = 0.70, and depressive symptoms (PHQ-9) were significantly negatively associated with active status, $B = -0.084$, $SE = 0.023$, Wald(1) = 13.54, $p < .001$, OR = 0.92. The other predictors were not statistically significant ($ps > 0.05$). Table 3 summarizes the results of the two binary logistic regression analyses.

While activity is accompanied by a certain submissiveness in both samples, apart from this factor, in Poland, those who have dependents are more active, whereas in Hungary, those who are more educated are. Furthermore,

Table 3 Logistic regressions predicting active status in Poland (N = 400) and Hungary (407) (Poland & Hungary, „The fate of young Ukrainians on the labor market in central Europe" project, 2022)

Predictor (Poland)	**B**	**SE**	**Wald χ^2**	**df**	**OR**	**95% CI for OR**
Gender (Male)	0.400	0.451	0.790	1	1.49	[0.62, 3.57]
Age (years)	–0.019	0.010	3.589	1	0.98	[0.96, 1.00]
Education	0.082	0.063	1.691	1	1.09	[0.96, 1.22]
Having Dependents	0.639*	0.264	5.882	1	1.90	[1.13, 3.21]
Submissiveness	0.708***	0.158	20.167	1	2.03	[1.48, 2.78]
Aware of Job Help	0.271	0.145	3.506	1	1.31	[0.99, 1.74]
Aware of Financial Help	–0.106	0.149	0.502	1	0.90	[0.67, 1.21]
PHQ-9 Score	0.001	0.021	0.001	1	1.00	[0.96, 1.04]
Constant	–1.017	0.868	1.374	1	0.36	[0.06, 2.01]
Predictor (Hungary)	**B**	**SE**	**Wald χ^2**	**df**	**OR**	**95% CI for OR**
Gender (Male)	0.347	0.269	1.664	1	1.42	[0.83, 2.43]
Age (years)	0.023	0.012	3.591	1	1.02	[1.00, 1.05]
Education	0.245**	0.080	9.331	1	1.28	[1.09, 1.49]
Having Dependents	0.296	0.268	1.220	1	1.35	[0.80, 2.29]
Submissiveness	0.319*	0.162	3.896	1	1.38	[1.00, 1.91]
Aware of Job Help	–0.060	0.123	0.237	1	0.94	[0.74, 1.19]
Aware of Financial Help	–0.354**	0.120	8.750	1	0.70	[0.55, 0.89]
PHQ-9 Score	–0.084***	0.023	13.537	1	0.92	[0.88, 0.96]
Constant	0.950	0.753	1.590	1	2.59	[0.58, 11.52]

Abbreviations used in the table: *B* (regression coefficient), *SE* (standard error), *Wald* χ^2 (Wald chi-square test), *df* (degrees of freedom), *OR* (odds ratio), *CI* (confidence interval)

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 4 Logistic regression predicting employment status in Poland (N = 301) and Hungary (N = 314) (Poland & Hungary, „The fate of young Ukrainians on the labor market in central Europe" project, 2022)

Predictor (Poland)	B	SE	Wald χ^2	df	OR	95% CI for OR
Gender (Male)	1.229*	0.479	6.573	1	3.42	[1.34, 8.75]
Age (years)	0.005	0.012	0.197	1	1.01	[0.98, 1.03]
Education	–0.021	0.063	0.112	1	0.98	[0.86, 1.10]
Having Dependents	0.190	0.260	0.532	1	1.21	[0.73, 2.00]
Submissiveness	0.147	0.148	0.983	1	1.16	[0.86, 1.57]
Aware of Job Help	0.484***	0.147	10.912	1	1.62	[1.23, 2.13]
Aware of Financial Help	0.055	0.147	0.142	1	1.06	[0.80, 1.39]
PHQ-9 Score	–0.007	0.021	0.128	1	0.99	[0.95, 1.04]
Constant	–2.185	0.927	5.553	1	0.11	[0.02, 0.60]
Predictor (Hungary)	**B**	**SE**	**Wald χ^2**	**df**	**OR**	**95% CI for OR**
Gender (Male)	–0.194	0.266	0.532	1	0.82	[0.49, 1.37]
Age (years)	0.048***	0.012	16.938	1	1.05	[1.02, 1.07]
Education	–0.082	0.063	1.720	1	0.92	[0.81, 1.05]
Having Dependents	–1.029***	0.271	14.428	1	0.36	[0.21, 0.62]
Submissiveness	–0.454**	0.170	7.154	1	0.64	[0.45, 0.89]
Aware of Job Help	0.022	0.124	0.033	1	1.02	[0.80, 1.31]
Aware of Financial Help	0.132	0.121	1.180	1	1.14	[0.90, 1.45]
PHQ-9 Score	0.012	0.023	0.277	1	1.01	[0.97, 1.06]
Constant	–0.710	0.722	0.968	1	0.49	[0.12, 2.01]

Abbreviations used in the table: *B* (regression coefficient), *SE* (standard error), *Wald* χ^2 (Wald chi-square test), *df* (degrees of freedom), *OR* (odds ratio), *CI* (confidence interval)

* $p < .05$; ** $p < .01$; *** $p < .001$

the difference is that knowledge of financial support in Hungary is associated with inactivity, and depressive symptoms are also associated with inactivity.

Factors contributing to employed status.

To identify the factors contributing to employed status, we also conducted binary logistic regressions to examine whether gender, age, education, having dependents, submissiveness, awareness of job-related and financial help, and depression symptoms (PHQ-9 scores) predicted whether active participants were employed or not. Again, we conducted these analyses separately for participants residing in Poland and Hungary.

For predicting the employed status (1 = working, 0 = not working), we also obtained significant models. For Poland ($n = 301$), the overall model was statistically significant, $\chi^2(8) = 28.69$, $p < .001$, explaining between 9.1% (Cox & Snell R^2) and 12.3% (Nagelkerke R^2) of the variance in employment status. The significant predictor was gender, $B = 1.23$, $SE = 0.48$, Wald(1) = 6.57, $p = .010$, OR = 3.42, indicating that men were more likely to be working than women were. Awareness of job-related help was also significant, $B = 0.48$, $SE = 0.15$, Wald(1) = 10.91, $p < .001$, OR = 1.62, suggesting higher odds of employment among those aware of job-related support services. The other predictors were not statistically significant ($ps > 0.05$).

The binary logistic regression used to examine the associations between demographic and psychological factors and employment status among active participants in Hungary ($n = 314$) also resulted in a significant model, $\chi^2(8) = 41.80$, $p < .001$, explaining between 12.5% (Cox & Snell R^2) and 16.7% (Nagelkerke R^2) of the variance in employment. The significant predictors were age, $B = 0.048$, $SE = 0.012$, Wald(1) = 16.94, $p < .001$, and OR = 1.05, indicating that older participants were more likely to be employed, having dependents, that significantly decreased the odds of employment, $B = -1.03$, $SE = 0.27$, Wald(1) = 14.43, $p < .001$, OR = 0.36, and submissiveness, which was also a negative predictor, $B = -0.45$, $SE = 0.17$, Wald(1) = 7.15, $p = .007$, and OR = 0.64. The other predictors were not statistically significant ($ps > 0.05$) (Table 4).

While in Poland, employment was therefore related to gender and to how aware they were of where to obtain help with finding a job, in Hungary, employment was related to other factors: older people and those who had no dependents were more likely to find work. Furthermore, those who did not have a job showed greater submissiveness.

Discussion

Our data support the H1 hypothesis for both countries. Our study corroborates previous findings that mental health and employment are positively associated [2, 12–15, 20]. We further demonstrated this association in the early stages of refugee resettlement, which was consistent across both samples included in our study. While the

correlational nature of our data precludes any definitive claims about causality, our findings support the assertion that facilitating access to employment for refugees is not only beneficial from economic and humanitarian standpoints but also may yield mental health benefits.

The proportion of individuals active in the labor market (i.e., either employed or unemployed) was similar across the two countries. Notably, however, the employment rate among those active was higher in Poland. This disparity is particularly pronounced among individuals responsible for dependents, who were significantly more successful in securing employment in Poland, which provides one of the grounds for accepting the general hypothesis H4 about different patterns of labor market engagement among Ukrainian refugees in Poland and Hungary.

Our investigation was guided by two sets of competing hypotheses. First, we examined the complex relationship between institutional support and refugee employment outcomes, a topic extensively debated in the literature [49–51, 70–75]. Second, we explored the relationship between submissiveness and mental health. While some authors argue that submissiveness can serve as an adaptive response and a strategic foothold in the face of displacement [35, 43–47], a substantial body of empirical research highlights the mental health risks associated with this attitude [39–41].

In the Polish context, awareness of institutional employment support emerged as a key factor differentiating between active and inactive individuals, as well as between employed and unemployed individuals. This suggests that within the Polish support framework, access to and knowledge of employment-related services likely played a facilitating role in encouraging labor market participation or that labor market participation provided additional access to and knowledge of these services. Thus, for Poland, H2a was supported (a positive relationship between labor market status and help awareness). Conversely, in Hungary, the relationship between support awareness and employment status showed an inverse pattern: individuals who were inactive were more likely to be aware of financial support options. This is understandable given that the Hungarian system restricts financial support to those not engaged in formal employment, although employed individuals may still access state-provided housing assistance through their workplace. Therefore, for Hungary, H2b, a negative relationship between labor market status and help awareness was true.

Moreover, refugees in Poland demonstrated a greater level of knowledge regarding both employment-related and financial institutional support than those in Hungary did. This discrepancy may reflect differences in the transparency, communication, or accessibility of support systems across the two national contexts. One of the reasons for this may be that the proportion of Ukrainian refugees accommodated in private houses was greater in Poland (66%) than in Hungary (48%). Although this solution is considered imperfect and creates opportunities for the exploitation of refugees [76], it cannot be ruled out that, to some extent, it proved helpful because of the assistance received directly from private individuals. Given the above differences in percentages between Poland and Hungary, it is worth mentioning that in Hungary, the percentage of respondents who received assistance from previously unknown persons was slightly lower than that in Poland (24% and 33%, respectively) [25].

Our findings concerning the relationship between submissiveness and mental health are weak and inconclusive. In the sample of Ukrainian refugees residing in Poland, this association was slightly positive, supporting H3a hypothesis that a higher degree of submissiveness is positively associated with mental health. However, in the sample from Hungary, the relationship between submissiveness and depressive symptoms was slightly positive, meaning that more submissive refugees had worse mental health, which is in line with H3b hypothesis. In this context, the weak correlations observed between submissiveness and mental health—operationalized here as having fewer depressive symptoms, particularly during the initial phase of displacement—may not be cause for immediate concern. However, in the longer term, it is important to recognize that submissiveness has been associated with lower self-confidence [77], especially in contexts that restrict individuals' capacity to negotiate their working conditions [43].

Notably, the two samples did not differ in terms of submissiveness. This strategy in an environment such as Poland could have had positive mental effects by supporting initial integration. However, in the case of refugees in Hungary, their openness could have encountered obstacles, such as the obstacle of placing children, which could have increased stress, frustration, and a feeling of being hindered. However, all these mechanisms are hypothetical, and further studies could clarify them.

Submissiveness also emerged as a relevant factor in labor market activity across both samples. Specifically, we found that an accepting, compliant attitude toward employment is characteristic of refugees who are active in the labor market during the early stages of resettlement. These findings are consistent with prior research suggesting that willingness to accept employment below one's qualifications may function as a coping mechanism to address immediate economic pressures following displacement [78]. Early labor market integration has also been shown to enhance a sense of empowerment [79], support the reconstruction of professional identity [80],

and alleviate symptoms of migration-related stress [81]. Moreover, scholars have cautioned that the potential benefits of early employment are contingent on the availability of appropriate institutional support and the recognition of refugees' diverse backgrounds and needs [35, 79, 82].

In the Polish subsample, submissiveness was significantly and positively associated with both labor force participation and employment. In contrast, among refugees residing in Hungary, while submissiveness was positively associated with labor force participation, its relationship with actual employment was negative. This divergence suggests that while a submissive stance may encourage job-seeking behavior, its effectiveness in leading to successful employment may depend on the broader institutional and labor market context. The differences between the two countries in this context also indicate the diversity of refugee strategies, as predicted by the general hypothesis H4.

One can suppose that one of the key factors differentiating the effectiveness of the submissive strategy can be the structure of childcare. Dependents in Hungary may hinder successful employment, whereas they may encourage activity. While refugee children in Poland often attended in-person classes, refugee children in Hungary mostly participated in remote learning, which likely limited their parents' access to work. In May 2022, 37% of Ukrainian children were covered by compulsory schooling in Poland, compared with 31% in Hungary [83], whereas at the beginning of the 2022–2023 school year, 31% of Ukrainian children in Hungary and 46% in Poland were enrolled in schools [84, 85]. In primary schools, the enrollment rate of refugee children in Poland was 52% in April 2022 and 55% at the beginning of the 2022–2023 school year [27]. It can be assumed that the differences in the percentages of refugee children attending schools in Poland and Hungary are also a consequence of language difficulties, which are much greater in Hungary than in Poland, due to the differences between the Ukrainian and Hungarian languages. In Hungary, refugees aged 12 + years were significantly more likely (57%) to report a complete lack of understanding of the language than were those in Poland (12%) and were also more likely not to participate or intend to participate in language courses (69% and 48%, respectively) [25]. In Poland, many refugee children attend residential schools [86], which gave an opportunity for mothers to take up employment. In our research, as many as 61.5% of active caregivers in Poland obtained employment. However, in Hungary, where distance learning dominated, the rate was only 33.1%. The more submissive attitude of unemployed refugees in Hungary can also be seen as an expression of their helplessness in their difficult situation.

If we apply the theoretical framework of RCT to interpret the differences between groups in the two countries, we assume that the information on possibilities in the labor market was distributed similarly between refugees in Poland and those in Hungary and that access to job-seeking institutions was also granted in both countries. Our findings may be explained especially by the Elster concept of "adaptive preferences," which describes how people change their desires to fit what they may achieve, sometimes undermining autonomy and rationality. He explores the tension between genuine autonomy and the psychological mechanisms that shape preferences in response to constraints [65, 87, 88]. The options to maximize safety and well-being were similar: (1) Decision 1: taking a job or not taking a job; (2) Decision 2 (caregivers of compulsory education aged children): sending children to a stationary education in the host country or allowing them to remotely participate in Ukrainian education; and (3) Decision 3 (caregivers of children too young to participate in compulsory education): taking care of their children themselves or under the supervision of other people or institutions.

Nevertheless, the financial benefits for refugees were greater in Poland than in Hungary, especially if the immigrant had more than one child. Equally important could be the cultural context. Although the written Ukrainian (or Russian, in the case of some refugees) language differs greatly from both Polish and Hungarian, spoken Ukrainian (and Russian) is in part similar to the Polish language. All three—Polish, Russian, and Ukrainian—are slavic languages [89]. Poles and Ukrainians can communicate via their home languages, which can be helpful during interviews, at the workplace, at school, or during visits to different institutions.

The decisions made by the majority of the adult refugees with dependents in Poland were different from the decisions of the majority of the similar groups in Hungary.

Using Elster's RCT theoretical framework, especially his focus on the limits of rational choice, including the difficulty of making the best decision in complex and rapidly changing situations, we may assume that from the point of view of refugees, the best rational decision in the complex situation of the refugees in Poland was to spend the financial aid received each month from the Polish government on childcare (leave children under personal or institutional supervision) or send children obligated for compulsory education to stationary schools, where they can start education immediately, without extra language courses, and start by the parent any job that can provide extra financial support. On the other hand, in Hungary, the most beneficial rational choice was to enroll children in remote Ukrainian education, where they may follow the programme without the need to take preparatory Hungarian-language classes, take care of the children by the parent (hiring babysitter or using institutional help can generate extra costs refugee must have

paid from their own savings, not receiving enough financial support from the Hungarian government), and spend extra time finding a job (active job search).

By applying Elster's RCT, we can also explain refugees' submissiveness in the labor market by using the concept of "satisfice" [90, 91], meaning that people may choose something good enough rather than the best possible option and that rational choice models need to acknowledge these limitations [90, 91]. Instead of trying to find "the best choice"—a job in line with their qualifications and previous experience—refugees decide to make a "good enough" choice—any job that may be underqualified or have bad working conditions but is easily accessible and provides extra financial support. In the context of the differences assumed in the general hypothesis H4, it can be stated that refugees use adaptive preferences, changing their desires to fit what is achievable in the host country at the moment [65, 88].

Limitations

The limitations of our study stem, in part, from the unavailability of certain data that would have been instrumental in gaining a deeper understanding of the complex, culturally embedded factors influencing the labor market participation of Ukrainian refugees. As highlighted during the presentation of binary logistic regression analysis results, our models were able to account for only a limited portion of the variation in labor market activity and employment status. Additional information—such as whether individuals had applied for temporary protection status or the age of their dependents—would have significantly strengthened our explanatory framework.

Another limitation is that it used a cross-sectional design, which means that it cannot tell us whether one thing causes another. Although the text partially suggests a claim of causality, a clearer and more objective assessment of the findings should be confirmed by further studies with longitudinal designs.

Moreover, the operationalizations of "awareness of support institutions" and "awareness of financial support" we applied were relatively simplistic (we used only one item per construct).

Furthermore, our research is subject to a broader set of limitations that commonly affect similar data collection efforts:

First, our research was based on self-reported data, which may be susceptible to distortions resulting from memory errors, from a tendency to give socially desirable responses (perhaps avoiding stigma around mental health [92]), or from alignment with cultural response tendencies (such as extreme or acquiescent response styles [93]).

Second, cross-sectional studies cannot draw conclusions with respect to the protective role of interventions that strengthen an individual's agency and resources.

Third, because the study was not longitudinal or culturally embedded, we were unable to capture the dynamic and contextual nature of refugees' experiences. Without such research, our knowledge of the long-term impact of agency and access to resources on mental health remains fragmentary. In the future, it is worth striving to create theoretically coherent, longitudinal research projects that consider cultural variability and structural conditions to better design interventions and formulate stronger causal conclusions.

Fourth, beyond measuring depressive symptoms, a measurement inquiring about positive experiences could have been included to capture the wholeness of emotional experience [94].

Finally, although our datasets were relatively large, it is possible that our respondents did not fully represent the broader population of Ukrainian refugees residing in Poland and Hungary.

Conclusions

The study revealed a relationship between the labor market participation of Ukrainian refugees in Poland and Hungary and their mental health, knowledge of support institutions, and submissiveness in the labor market. In both countries, economically inactive individuals had higher rates of depression than did employed individuals.

Differences existed between refugees arriving in the two countries in terms of the relationship between the awareness of support institutions and labor market participation. While in Hungary, awareness of support did not favor labor market participation, in Poland, the correlation was positive; in Poland, a high level of submissiveness was a factor favoring labor market participation, as were having dependents, and a high level of awareness of institutional help in job finding was a positive factor of employment status. In Hungary, although submissiveness was a positive factor in participating in the labor market, it proved to be adversely associated with employment status. Higher education was also a positive factor for participation in the labor market, while being aware of financial help and having depressive symptoms were negative factors. Younger age and having dependents correlated negatively with having an employed status. These differences may be due to differences in the support systems of the two countries. Clearly, countries with stronger support in education and family services appear to achieve better outcomes, suggesting that governments should consider reinforcing these areas.

This issue, as well as other factors, including cultural determinants, requires additional longitudinal and qualitative research that allows for an idiographic perspective on the overall determinants of labor activity.

Our findings point to several directions for policy and practice implications. First, the strong association

between employment and better mental health among refugees underlines the importance of active labor market measures. Policy makers should prioritize access to jobs through vocational training and language courses tailored to refugees' needs.

Second, since family responsibilities shape employment outcomes, childcare provisions and flexible work arrangements are necessary to reduce barriers for those with caregiving duties.

Finally, integration policies should not be limited to labor market activation alone. They should combine employment, social, and psychological support to address both structural and individual-level barriers. Practitioners and decision-makers are thus encouraged to design holistic support systems that foster sustainable refugee integration.

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Authors' contributions
J.M.K.: Conceptualization, Formal analysis, Investigation, Methodology, Software and data analysis, Visualization, Writing – original draft, Writing – review, Resources, Editing, Supervision. D.L.: Conceptualization, Investigation, Theory application, Visualization, Writing – original draft, Writing – review, Editing, Resources, Project administration.G.D. and P.W.: Conceptualization, Investigation, Resources, Software, Validation, Writing – original draft, Writing – review, Funding acquisition.C.C: Resources, Writing – original draft, Writing – review. All authors reviewed the manuscript.

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Data availability
Materials generated in this study are available from the corresponding author upon request.

Declarations

Ethics approval and consent to participate
The studies were approved by the following committees: (1) In Poland: Institutional Ethics Committee of University of Krakow Rector's Research Ethics Board (protocol code DNa.0046.1.5.2022, 28.09.2022) and (2) In Hungary: Egyesített Pszichológiai Kutatásetikai Bizottság (protocol code 2022 – 108, 08.10.2022).
Informed consent to participate in the study was obtained from the participants.

Consent for publication
Not applicable. The survey was completely anonymous, and no individual person's data in any form were gathered from the participants.

Competing interests
The authors declare no competing interests.

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