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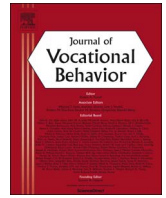
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Antecedents of job search self-efficacy of Syrian refugees in Greece and the Netherlands

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ABSTRACT

The goal of the current study was to investigate the relationships among psychological resources, career barriers, and job search self-efficacy in a sample of post-2014 Syrian refugees. Participants included 330 refugees in Greece and the Netherlands. Data were obtained using paper-based surveys, with all measures translated into Arabic. Drawing from career construction theory (Savickas, 2005), we hypothesized that adaptive readiness, operationalized in terms of psychological capital, would be positively related to job search self-efficacy through career adaptability. In addition, social and administrative career barriers were hypothesized to moderate the first stage of the indirect effect between psychological capital and job search self-efficacy, such that this relationship is weaker when refugees experience higher career barriers. Results indicated that individuals with higher psychological capital more confidently engaged in job search behavior in the destination country, mostly due to their enhanced career adaptability. However, this relationship weakened when participants experienced higher social barriers and strengthened when they experienced higher administrative barriers. The findings provide further support for the career construction model of adaptation (Savickas & Porfeli, 2012) and pinpoint career adapt-ability resources as critical self-regulatory strengths that help individuals in this particularly vulnerable group adapt to occupational transitions. Moreover, the results highlight the potentially detrimental role of social barriers in this process. Based on the results, we offer implications for formulating training and career construction theory-based career counseling focused on enhancing career adaptability and psychological capital.

1. Introduction

Globally, the number of people with a refugee status has reached 22.5 million, of whom 4.4 million reside in Europe. The current refugee influx represents the largest population movement in Europe since the Second World War (UNHCR, 2017a). This inflow poses challenges for host societies in terms of not only logistics, but also—and more importantly—the ensuring of long-term integration. Employment is one key strategy for newcomer integration (Colic-Peisker & Walker, 2003), because it provides the financial security and resources that facilitate integration in other life domains (Marmot & Wilkinson, 2006). Yet unemployment rates among recent refugees are disproportionately high (Bloch, 2002), and those who do secure employment usually do so in secondary labor markets (Colic-Peisker & Tilbury, 2006). In EU countries, it takes five to six years on average for > 50% of refugees to become employed and

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as much as 15 years to reach a 70% employment rate (Konle-Seidl & Bolits, 2016). Hence, most refugees who have arrived in the EU in the post-2014 wave are still in the initial stage of orienting themselves on the local labor market.

In the general population, job search self-efficacy (JSSE), defined as the belief that one can successfully perform specific job search behaviors and obtain employment (Saks & Ashforth, 1999), is a critical antecedent of searching for and securing employment (e.g., Brown, Cober, Kane, Levy, & Shalhoop, 2006). Given that refugees are often unfamiliar with the different ways of conducting different job search tasks in their new context, JSSE might be even more important for their chances of acquiring employment. Low JSSE, coupled with limited support and oftentimes lengthy bureaucratic procedures, may be particularly vexing for refugees, as each month of inactivity decreases the odds of subsequent employment (Shekhar et al., 2016). Therefore, the current study focuses on understanding individual level antecedents of JSSE among refugees, which might help remove barriers to a quick start in the host country.

Career construction theory (CCT; Savickas & Porfeli, 2012) forms the theoretical backbone of the current study because it explains how people adapt to critical tasks, transitions, and challenges in their occupational development. Specifically, the career construction model of adaptation (CCMA) proposes a sequential process through which relatively stable personality traits (adaptive readiness) impact career-specific adaptability resources (career adaptability), which in turn trigger behaviors and beliefs that individuals use to navigate changing conditions (adapting). Different operationalizations of adaptivity, career adaptability, and adapting have been related to a range of positive outcomes in the career and job domains, including employment status and employment quality (Koen, Klehe, Van Vianen, Zikic, & Nauta, 2010), promotability (Chan, Mai, Kuok, & Kong, 2016) and career satisfaction (McKenna, Zacher, Ardabili, & Mohebbi, 2016). Guan et al. (2014) provided longitudinal evidence that JSSE mediates the relationship of career construction model dimensions with employment outcomes. Thus, CCMA forms a valuable framework for investigating the extent to which adaptive readiness and career adapt-ability resources explain refugees' career-related adapting, as reflected in their JSSE, and concomitant objective and subjective outcomes.

Refugee job search and labor market integration do not happen in a vacuum, but rather at the interface between individual and contextual factors that may reside at the organization, municipality, and/or country level (Kogan, 2016). The United Nations High Commissioner for Refugees (UNHCR, 2017a) has identified legislative and administrative procedures as critical challenges to refugee employment in Europe. Post-2014 refugees likely also experience additional social challenges due to their different cultural backgrounds—more so than for the previous refugee cohorts in Europe (e.g., those fleeing from the Yugoslav war in the 1990s). Such stronger social differences may induce discrimination and stereotyping by the indigenous population and can trigger perceptions of cultural misfit, which together with administrative barriers might dissuade job search efforts. Therefore, we address the role of administrative and social career barriers in refugees' career adaptability.

This study sets out to make several contributions to the emergent literature on refugee careers. First, we aim to better understand career adaptability among a particularly vulnerable, jeopardized, marginalized, and under-researched population that stands to gain a lot from a better understanding of those individual and contextual factors that proximally contribute to their JSSE and distally to their labor market integration and well-being. CCT (Savickas, 2005) focuses on adaptation to transitions in the career and occupational domain. Comparable to what happens in other career transitions and traumas, different refugees may adapt differently to the host country labor market. Achieving positive adaptation outcomes will depend on adaptive readiness, available career adapt-ability resources, and demonstrated adapting beliefs and behaviors. Although the literature stresses the importance of testing CCT in less privileged populations, existing studies have only focused on older workers (Zacher & Griffin, 2015), disabled workers (Santilli, Nota, Ginevra, & Soresi, 2014), or the unemployed (Zikic & Klehe, 2006); studies among refugees are lacking and we provide one such study here.

Second, research on the role of context in career adaptability is scarce (notable exceptions being Guo et al., 2014; Maggiori, Johnston, Krings, Massoudi, & Rossier, 2013). Here, taking perceived career barriers into account, we look at Syrian refugees who recently resettled in the Netherlands and Greece. These two countries represent two very different contexts, and we explore whether this has consequences for career adaptability. Given the urgency, severity, and complexity of many refugees' rather desperate positions, recommendations for evidence-based interventions are sorely needed. Therefore, we aim to generate insights into the role of psychological capital and career adaptability in this group.

2. Theoretical background and hypothesis development

The current study expands previous work by examining psychological capital, which previous studies used to operationalize individual adaptive readiness, as one of the key factors that might contribute to refugees' career adaptability and JSSE. Although individual differences have been found to be related to refugees' coping and recovery from trauma (Jayasuriya, Sang, & Fielding, 1992), the investigation of person-centered variables in relation to employment-related outcomes has to date remained restricted to demographic factors such as gender (Cebolla-Boado & Finotelli, 2015), human capital (Hartog & Zorlu, 2009), and social capital (Konle-Seidl & Bolits, 2016). Research on how adaptive readiness affects refugees' employment-related outcomes is lacking. Here we address adaptive readiness in terms of psychological capital, which is defined as “a core psychological factor of positivity in general [...] that goes beyond human and social capital to gain a competitive advantage through investment/development of ‘who you are’” (Gardner, Avolio, Luthans, May, & Walumbwa, 2005, p. 253).

Psychological capital is concerned with individuals' general positive outlook on life. It integrates four elements: self-efficacy (confidence in one's ability to successfully complete a task or goal), hope (perceived ability to motivate oneself via agentic thinking), resilience (capacity to recover from failure or adversity), and optimism (making stable and internal attributions to positive events and unstable and external attributions to negative ones) (Luthans, Youssef, & Avolio, 2007). In non-migrant populations, psychological

capital is instrumental to success in the employment domain, relating positively to career adaptability (Tolentino et al., 2014), perceived employability, and job search (Chen & Lim, 2012). Because positive expectancies are related to adaptive coping (Scheier, Carver, & Bridges, 1994) and flexibility in response to novel situations (Aspinwall, Richter, & Hoffman, 2001), we conceptualize refugee adaptive readiness in terms of psychological capital and propose psychological capital as a key trait antecedent of career adaptability and JSSE beliefs (cf. Rudolph, Lavigne, & Zacher, 2017; Santilli et al., 2014; Tolentino et al., 2014).

2.1. Career adaptability as a link between psychological capital and JSSE

Career adaptability is the self-regulatory capacity to cope with career transitions and “unpredictable adjustments prompted by changes in work and working conditions” (Savickas, 1997, p. 254). Adaptivity captures stable psychological tendencies to adapt, and career adapt-ability resources represent the “how” (Savickas, 2005). Career adapt-ability resources are contingent on psychological tendencies and result in diverse career- and job-related outcomes. Adaptable individuals take responsibility for developing their careers, prepare for unwanted situations, and explore alternative possibilities (Rudolph et al., 2017). Proximal outcomes of career adaptability, such as JSSE (Guan et al., 2014), career self-efficacy (Hirschi, Herrmann, & Keller, 2015), and career exploration (Rudolph et al., 2017), help individuals to develop their careers and cope with a changing work environment. Distal outcomes include employment quality or job satisfaction (Koen et al., 2010).

In searching for work in a new country, refugees usually go through several iterative stages involving assessing personal characteristics, researching job opportunities, submitting applications, participating in interviews, negotiating with potential employers, and—if all goes well—making decisions on which job to accept (e.g., Brown et al., 2006). Believing that one can perform all tasks related to a job search (JSSE) is highly relevant for initiating and sustaining efforts vis-à-vis the successive stages, as high self-efficacy motivates individuals to set challenging goals and strive for their attainment (Bandura, 1977). Through its four dimensions, concern, control, curiosity, and confidence, career adaptability strengthens one's JSSE because more adaptable individuals prepare themselves better for job search (concern), take effective job search actions (control), develop a more comprehensive understanding of their characteristics and the job market situation (curiosity), and are generally more confident. Based on CCT research (e.g., Guan et al., 2014), we argue that career adaptability promotes refugees' self-regulatory capacity in job search. Specifically, global personal agency, as manifested in psychological capital, gives rise to career concern, control, curiosity, and confidence, which together enhance domain-specific self-efficacy related to job search. In sum, JSSE represents an adapting belief that results from global personal adaptivity that is transferred through adaptability within the work and career domain. We hypothesize that:

Hypothesis 1. Psychological capital is positively related to job search self-efficacy through career adapt-ability resources.

2.2. Career barriers as moderators

Perceived career barriers refer to the events or conditions, either within the person or within her/his environment, that form obstacles to career progression (Swanson & Woitke, 1997). People might experience numerous barriers throughout their careers; the number sharply increases when coupled with other traumatic life experiences. Several unique subjective and objective barriers accompany the experience of forced migration, including lacking or insufficient language skills, the non-transferability of job qualifications, cultural differences, and legal constraints regarding work before obtaining a residence permit (Shekhar et al., 2016). These barriers can impede gaining employment, with their significance often being greater than the barriers faced by the local population or other migrant groups (e.g., family migrants; expatriates) (Ortensi, 2015). Thus, addressing the role of career barriers is important to improve our understanding of refugees' career development.

Although popular in empirical research and in economic models of migrant employment, career barriers have been only marginally acknowledged in most theoretical models in the vocational behavior domain (Swanson, Daniels, & Tokar, 1996). Likewise, the CCMA does not explicitly recognize their role, but does conceive of career development as a psychosocial activity at the interface between the self and the society of which one is a part. In doing so, it emphasizes the fit between the person and the environment as the key goal of career adaptation. If one accepts that career adaptability is developed at the intersection between the inner and outer worlds (Tolentino et al., 2014), the translation of global adaptive readiness into domain-specific self-regulatory resources is contingent on institutional demands of the society in which one is situated (Savickas, 2005). Therefore, perceived career barriers may influence the process and outcomes of refugees' career adaptation by affecting the congruence between the individual and his or her environment (Edwards & Shipp, 2007).

In line with this, social cognitive career theory (Dawis & Lofquist, 1984) conceptualizes career barriers as specific, contextual demands on knowledge, skills, and abilities that the employment context imposes on the person. The correspondence between the person and the environment is high, either when a person's abilities meet the demands of the employment context and/or when the supplies of the context meet the needs of a person (Su, Murdock, & Rounds, 2015). Perceptions of high career barriers might thus constrain career-related self-efficacy (e.g., Creed, Patton, & Bartrum, 2004), occupational choice (Brown & Lent, 1996), and career engagement (Hirschi, Lee, Porfeli, & Vondracek, 2013).

In the current study, we address two sets of career barriers experienced by refugees: administrative and social barriers. Administrative barriers represent the administrative issues refugees face whereas social barriers include cultural and social differences as well as the process of adapting to the values and behaviors of a new culture. Administrative issues are commonly addressed within immigration policy debates, while challenges pertinent to social differences and the process of adapting to the values and behaviors of a new culture represent a social barrier commonly discussed in relation to mental health needs (Flannery, Reise, & Yu,

2001). We argue that, in the employment domain, both types of barriers may play a role, and we study their role in refugees' career adaptability.

Although the aforementioned theoretical rationale suggests a negative role of barriers in the career development of refugees, research suggests that perceiving career-related barriers might not always be impeding or defeating, but at times may also have a positive, challenging effect on individuals (Swanson & Tokar, 1991). Specifically, the interaction between an individual's tendency to expect positive or negative outcomes (optimism/pessimism) and external barriers has been found to determine the effects of barriers (Scheier & Carver, 1993). In that sense, career barriers may not necessarily have (as many) negative implications for people with high as opposed to low adaptive readiness.

Although the above argumentation is somewhat inconclusive with regard to the effect of career barriers on the relationship among global psychological capital, career adapt-ability resources, and job search self-efficacy, we propose that the particularities of forced migration need to be accounted for. Extremely stressful life situations, such as fleeing war and the risk of persecution, require the mobilization of one's resources for a prolonged time and in multiple life domains. Refugees' personal resources are repeatedly taxed in an effort to buffer the negative consequences of traumata. Therefore, the environment in which refugees experience intense administrative barriers and a strong sense of not fitting in the local culture, or of being treated differently because of their background, might exert additional strain on the already burdened self-regulatory mechanisms, weakening their effects on desirable outcomes. Therefore, we argue that experiencing such obstacles buffers the positive influence of the relatively stable and global psychological capital variables on the career-specific manifestations of career adaptability and JSSE. We hypothesize:

Hypothesis 2. Social career barriers moderate the first stage of the indirect effect between psychological capital and job search self-efficacy, such that this relationship is weaker when refugees experience higher career barriers.

Hypothesis 3. Administrative career barriers moderate the first stage of the indirect effect between psychological capital and job search self-efficacy, such that this relationship is weaker when refugees experience higher career barriers.

2.3. Potential differences among Greece and the Netherlands

The current study focused on recently resettled Syrian refugees in Greece and the Netherlands. Some differences exist between these countries in terms of the recent refugee arrivals. In 2015 alone, approximately 850,000 people crossed the Aegean Sea and arrived in Greece (UNHCR, 2017b). In the same period, the Netherlands received substantially smaller numbers of refugees—approximately 114,000 persons (UNHCR, 2017a). In addition, the local labor markets offer different employment opportunities. Greece has relatively high levels of employment protection legislation, making the market less flexible and less accessible to refugees. This rigidity of the formal labor market is somewhat offset by a relatively large informal economy, in which many end up working. The economic crisis has further reduced refugees' chances to escape unemployment. Despite the Greek government's recent efforts, its asylum system is still undersized, fragmentary, and inefficient, with a crucial role being played by local NGO and charity networks. The lack of support for the majority of those awaiting a decision on their application leaves thousands of forced migrants in a state of exclusion and severe marginalization (Karantinos, 2016).

In contrast, the Netherlands has a lower level of employment protection legislation, which renders the labor market more flexible and more accessible to refugees. In addition, the Dutch asylum system is standardized and systematic, with national and local governments being key stakeholders. However, although municipalities provide basic support, long-term integration is largely an individual responsibility. Furthermore, the authorities favor general employment policies with no targeted refugee-specific measures (Huddleston, Bilgili, Joki, & Vankova, 2015). In both countries, refugees are commonly identified as a vulnerable group who experience high unemployment and underemployment (Colic-Peisker & Tilbury, 2006).

While there clearly are both differences and similarities in the country context, the implications of these for career barriers and the career adaptability of refugees are still unclear. On one hand, based on the often-demonstrated value of career adapt-ability resources in different contexts and across populations (e.g., Savickas & Porfeli, 2012), we expect the sequential model of career adaptation to hold for Syrian refugees in both contexts. On the other hand, contextual differences might affect the specific career barriers these refugees face. For example, although legislation, administrative procedures, and social integration are well-known challenges in both countries, the salience of different challenges might differ, thereby potentially differentially affecting career adaptability.

To enhance our understanding of how country differences affect the relationships among psychological capital, career adapt-ability resources, and JSSE or the moderating role of administrative and social barriers, this study compared the hypothesized model in both countries and posed two exploratory research questions:

Exploratory research question 1. Does the indirect relationship between psychological capital and job search self-efficacy through career adapt-ability resources differ between Syrian refugees in Greece and those in the Netherlands?

Exploratory research question 2. Do administrative and social barriers exhibit the same moderating effects on the indirect relationship between psychological capital and job search self-efficacy through career adapt-ability resources among Syrian refugees in Greece and the Netherlands?

3. Method

3.1. Participants

The study included 330 participants: 59.4% currently settled in the Netherlands and 40.6% in Greece. Participants were on average 31.72 years old ($SD = 8.33$). Of the participants, 30.6% were female and 62.4% were male (7% participants chose not to indicate gender). In terms of marital status, 44.8% of the participants indicated that they were single, 35.5% married, 7.9% divorced, and 2.7% widowed; 9.1% did not indicate marital status. Furthermore, 30% had children whereas 59.7% did not; 10.3% chose not to answer. The majority of participants indicated a bachelor's degree (36.4%) or high school diploma (30.9%) as their highest level of education. Most participants (68.8%) indicated having previous work experience in a range of occupational backgrounds, including blue collar jobs, administrative functions, teaching and education, translation, management, engineering, arts, and medicine. At the time of the survey, participants had resided in their current country 22.52 months ($SD = 18.20$), and just over half (52.7%) said that they intended to stay in their current destination. In addition, 21.5% indicated that they had participated in training programs aimed at improving their chances in the labor market.

3.2. Procedure

We collected data for the current study using paper-based surveys. Participation was voluntary, and participants received a small incentive for participating (e.g., coffee, tea, and/or food). All data were collected anonymously and used for research purposes only. The study was approved by the ethics committee of the faculty employing the researchers. Target participants were refugees from Syria because Syria represents the most common origin country of approved asylum applicants within the EU (UNHCR, 2017a). We applied a non-probability snowball sampling technique by recruiting participants through referrals among the people who shared study relevant characteristics. In refugee research, snowball sampling is frequently used as refugees are difficult to locate using other means (e.g., Bloch, 2007). To reduce the risk of range restriction and ensure more comprehensive coverage, > 30 care organizations and accommodation providers were approached, and contact with gatekeepers within these organizations was established. Although this was a lengthy process, the role of gatekeepers was substantial; they helped gain access, facilitated the building of rapport with the refugees, and pointed out other organizations or participants. To facilitate comprehension and to create a safe and distraction-free environment, we administered surveys one-on-one or in small groups, allowing ample time for questions and comments.

3.3. Measures

We measured psychological capital, career adaptability, JSSE, and career barriers on 5-point scales ranging from 1 (*not strong*) to 5 (*strongest*) for career adaptability and 1 (*fully disagree*) to 5 (*fully agree*) for all other scales.

All measures were translated into Arabic using a translation-back translation procedure (Brislin, 1970). To ensure the quality of the content and translation, a focus group was organized prior to translation, in which five representatives of the target population evaluated the survey. The purpose was to make sure that the survey was understandable, clear, and free from any potentially offensive, inappropriate, or hurtful content. Although no major issues emerged, suggestions pertaining to the provision of more detailed and simplified instructions were implemented. After translating the instrument, a second focus group was conducted with six representatives of the target population to verify the translation. Through joint discussion, consensus was reached regarding the final format and wording of the survey.

3.3.1. Psychological capital

Psychological capital was measured with the 12-item Compound-Psychological-Capital questionnaire (PCPC-12; Lorenz, Beer, Pütz, & Heinitz, 2016). The scale consists of four subscales: hope, resilience, optimism, and self-efficacy. Example items are: "If I should find myself in a jam, I could think of many ways to get out of it" (hope); "It's okay if there are people who don't like me" (resilience); "The future holds a lot of good in store for me" (optimism); "I can remain calm when facing difficulties because I can rely on my coping abilities" (self-efficacy). The Cronbach's alpha for this scale was 0.984 in the Greek sub-sample and 0.958 in the Dutch sub-sample.

3.3.2. Career adaptability

The Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) was used to assess participants' career adapt-ability resources, that is concern, control, curiosity, and confidence, using six items each. Example items are "Thinking about what my future will be like" (concern), "Making decisions by myself" (control), "exploring my surroundings" (curiosity), and "Overcoming obstacles" (confidence). The Cronbach's alpha was 0.972 in the Greek sub-sample and 0.958 in the Dutch sub-sample.

3.3.3. Career barriers

The career barriers scale included five items for administrative barriers and five items for social barriers to labor market integration. These items were obtained from Bloch (2002). Participants rated the extent to which they had experienced each barrier. Example items are "Not having my qualifications recognized" (administrative barriers) and "Not fitting in the local culture" (social barriers). The Cronbach's alpha for administrative barriers was 0.719 in the Greek sub-sample and 0.721 in the Dutch sub-sample whereas, for social barriers, it was 0.757 and 0.775, respectively.

3.3.4. Job search self-efficacy

JSSE was measured using Saks, Zikic, and Koen's (2015) 10-item scale for job search self-efficacy behavior (JSSE-B). Participants were asked to indicate their confidence in successfully performing specific job search behaviors, an example item being "Plan and organize a weekly job search schedule." The Cronbach's alpha was 0.912 in the Greek sub-sample and 0.921 in the Dutch sub-sample.

3.3.5. Control variables

Recent research suggests that gender plays a role in employment in the current refugee cohort (Cebolla-Boado & Finotelli, 2015), because traditional views of gender roles might affect women's employment-related self-efficacy (Konle-Seidl & Bolits, 2016). Thus, we controlled for gender. Also, human capital variables, such as work experience and education, may be positively related to career adaptability and JSSE. More experienced and educated workers may have accumulated more job-relevant knowledge, skills, and abilities (KSAs) and might feel more confident in their ability to secure employment. Conversely, KSAs that are not easily transferable might have negative consequences for JSSE. Similarly, less educated workers might be more confident than their high-skilled counterparts, because the former are seeking those jobs more readily offered to refugees. Education qualifications do not tend to pay off in the first five years after arrival (Hartog & Zorlu, 2009) because of challenges involved in recognition of educational certificates (Buber-Ennser et al., 2016) and employers' prejudiced attitudes toward foreign qualifications (Bilgili, Huddleston, & Joki, 2015). We therefore controlled for work experience and education level. Local language ability affects access to the local labor market and helps in adapting to the new society. In some occupations, language proficiency may be less important (Bloch, 2007), whereas others require fluency (Hartog & Zorlu, 2009). Hence, we controlled for fluency in Dutch or Greek. Next, as previous research has demonstrated the positive effects of targeted career support on employment (e.g., Heinesen, Husted, & Rosholm, 2013), we also controlled for participation in any work-related training program. Because many administrative and psychological processes (e.g., mourning over the life left behind) need to occur before refugees reach a point where they can engage in job search, we controlled for length of stay in Greece or the Netherlands. Finally, we accounted for the intention to stay in Greece or the Netherlands as this might affect the investment of personal resources toward job search.

3.4. Analytical strategy

Confirmatory factor analyses (CFA) and path analyses were conducted with MPLUS (Version 7) (Muthén & Muthén, 2012). A maximum likelihood procedure with robust standard errors and chi-square (MLR) was used to test the measurement models, and a full-information maximum likelihood estimation (FIML) with 95% bias-corrected bootstrap confidence intervals based on 5000 bootstrapped samples was used to estimate the parameters of the hypothesized moderated-mediation model. We estimated the indirect and interaction effects within the same model (e.g., Edwards & Lambert, 2007). Moreover, we used a two-step process to assess the role of control variables, testing the models with and without controls (Spector & Brannick, 2011). The root-mean-square-error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR) were used to assess fit. For the nested-model comparisons, Satorra-Bentler's corrected significance test was used.

4. Results

4.1. Descriptive statistics and correlations

Table 1 depicts correlations and reliability coefficients, with values for the total sample below the diagonal and values for Greece and the Netherlands above it. All scales demonstrated adequate reliability. Most correlations were in the expected direction. In both sub-samples, correlations among psychological capital, career adaptability, and JSSE were positive and significant. Social barriers did not relate significantly to career adaptability or JSSE, whereas administrative barriers related significantly and negatively to JSSE in the full sample and in the Dutch sub-sample.

To provide insight into potential differences between refugees in Greece and the Netherlands, we compared the groups using independent sample *t*-tests. The results (see Table 2) indicate statistically significant differences in the mean levels of most variables. In terms of demographics, refugees in Greece were on average slightly but significantly older, while their mean education and work experience were lower than those of refugees in the Netherlands. Also, refugees in the Netherlands had been in the current host country for significantly longer, were more proficient in the local language, and were more positively inclined to stay in the host country than those in Greece. Although comparisons in sample characteristics need to be taken with some reservations because of the non-probability sampling we applied, the results are aligned with recent arguments (Buber-Ennser et al., 2016) about the positive selection of migrants with better socio-economic status (and presumably human capital) because crossing multiple borders requires substantial financial investment and would be more difficult to afford. Both administrative and social barriers were perceived to be higher in Greece, although the difference was significant only for social barriers. Finally, participants based in Greece indicated higher levels of career adaptability and JSSE, while the two groups did not differ significantly on psychological capital.

4.2. Measurement model

We performed a series of CFAs to compare the fit of the hypothesized measurement model to alternative models (see Table 3). The results indicate that the hypothesized measurement model adequately fit the data ($SB-\chi^2 = 2383.299$, $df = 1466$, $p < 0.01$; CFI = 0.882; RMSEA = 0.04; SRMR = 0.06), with the single factor model demonstrating poor fit ($SB-\chi^2 = 4766.718$, $df = 1484$,

Table 1
Correlations and reliability of study variables.

	1	2	3	4	5	6	7
1. Country	(-)						
2. Gender	0.026	(-)					
3. Age	0.210**	0.098	(-)				
4. Months since leaving	0.256**	-0.049	0.086	(-)			
5. Intentions to stay	-0.620**	0.102	-0.118	-0.148*	(-)		
6. Education level	0.341**	-0.031	0.120	0.051	-0.129*	(-)	
7. Work experience	0.202**	0.072	0.198**	0.125*	-0.053	0.109	(-)
8. Local language proficiency	0.213**	0.029	-0.044	0.336**	-0.130*	0.054	0.142**
9. Training participation	0.193**	0.017	-0.037	0.219**	-0.053	0.177**	0.114*
10. Psychological capital	-0.116*	0.033	-0.080	0.059	0.023	0.015	0.085
11. Career adaptability	-0.186**	0.060	-0.113	-0.003	0.172**	-0.053	0.093
12. Job search self-efficacy	-0.157**	-0.066	-0.108	-0.055	0.026	0.084	0.120*
13. Social barriers	-0.178**	0.072	0.110	-0.087	0.210**	-0.092	-0.015
14. Administrative barriers	-0.069	0.048	0.042	-0.080	0.028	-0.106	-0.068

	8	9	10	11	12	13	14
1. Country (0 = Greece; 1 = Netherlands)							
2. Gender (0 = Female; 1 = Male)	0.134/ -0.051	0.102/ -0.027	0.037/0.034	0.078/0.057	-0.015/ -0.086	0.085/0.074	0.073/0.035
3. Age	-0.235*/ -0.012	0.101/ -0.139	0.019/ -0.106	-0.080/ -0.086	-0.036/ -0.123	-0.006/0.195*	-0.069/0.113
4. Months since leaving	0.236*/ 0.375**	0.017/ 0.257**	0.127/0.091	0.093/0.042	-0.028/ -0.022	-0.002/-0.078	0.011/-0.124
5. Intentions to stay	0.192/ -0.023	-0.05/ 0.147*	-0.118/ -0.080	-0.051/ 0.035	-0.256*/ -0.041	0.120/0.133	-0.063/0.034
6. Education level	-0.273* */0.205**	0.018/ 0.183*	-0.049/ 0.141	-0.153/ 0.164*	-0.021/ 0.227**	0.105/-0.145*	-0.004/ -0.139
7. Work experience (0 = No; 1 = Yes)	0.227**/ -0.003	0.038/ 0.105	0.149/0.086	0.114/ 0.147*	0.036/0.262**	0.049/-0.008	0.015/-0.118
8. Local language proficiency	(-)	0.098/ 0.293**	0.116/0.003	0.349**/ 0.123	0.284**/0.132	-0.025/0.000	0.088/-0.092
9. Training participation	0.252**	(-)	0.098/0.057	-0.062/ 0.295**	0.043/0.295**	0.063/-0.124	-0.019/ -0.213**
10. Psychological capital	0.025	0.049	(0.984/ 0.958)	0.520**/ 0.391**	0.404**/ 0.391**	-0.007/-0.343	0.022/-0.120
11. Career adaptability	0.184**	0.024	0.526**	(0.972/ 0.958)	0.430**/ 0.411**	0.004/-0.234	-0.002/ -0.191**
12. Job search self-efficacy	0.162**	0.171**	0.406**	0.431**	(0.912/0.921)	-0.005/-0.263	0.047/-0.341**
13. Social barriers	-0.048	-0.089	-0.163**	-0.080	-0.108	(0.757/0.775)	0.373**/0.380**
14. Administrative barriers	-0.023	-0.14/ 0.9**	-0.051	-0.083	-0.164**	0.382**	(0.719/0.721)

Note. *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$. Correlations for the entire sample are presented below the diagonal. Correlations for each sub-sample are presented above the diagonal, for Greece and the Netherlands, respectively. Reliability coefficients are presented for Greece and the Netherlands, respectively. Country was coded as 0 = Greece; 1 = The Netherlands, Gender was coded as 0 = Female; 1 = Male, and Work experience was coded as 0 = No; 1 = Yes.

$p < 0.01$; CFI = 0.578; RMSEA = 0.08; SRMR = 0.11; $SB-\Delta\chi^2_{(df)} = 323.722_{(18)}$, $p < 0.001$). To assess whether our measures were invariant across the two sub-samples, a multi-group CFA was conducted. We tested configural, metric, and scalar invariance for each scale. The results indicated full configural and metric as well as partial scalar invariance across the two groups. Following recommendations that at least two scalar and metric invariant indicators are sufficient to permit meaningful mean comparisons (Byrne, Shavelson, & Muthen, 1989), we proceeded with hypotheses testing.

4.3. Test of overall path model

Overall, models with control variables demonstrated better fit, although hypothesized paths pertaining to parameter estimates remained nearly identical between the models. As our controls offer insights into the relationship between JSSE and country, gender, education, work experience, language proficiency, training participation, length of time in the current country, and intention to stay, we controlled for these factors in model testing.

Specifically, we regressed career adaptability on psychological capital, social barriers, administrative barriers, the two interaction

Table 2
Descriptive statistics and t-tests for differences between Greece and the Netherlands.

Variable	All participants		Greece		Netherlands		t(1330)	Cohen's d
	M	SD	M	SD	M	SD		
Gender	0.67	0.47	0.66	0.48	0.68	0.47	- 0.459	0.05
Age	31.72	8.33	29.34	7.10	33.00	8.67	- 3.507***	0.46
Months since leaving	22.52	18.02	16.54	17.66	26.07	17.33	- 4.262***	0.55
Intention to stay in the current country	1.35	0.48	1.15	0.36	1.78	0.42	12.226***	1.64
Education	2.36	1.08	1.87	1.14	2.63	0.93	- 5.890***	0.73
Work experience	0.69	0.46	0.57	0.50	0.77	0.42	- 3.630***	0.41
Language proficiency	1.98	1.06	1.71	1.10	2.17	1.00	- 3.939***	0.44
Training participation	0.22	0.41	0.12	0.33	0.28	0.45	- 3.773***	0.41
Psychological capital	3.77	0.62	3.86	0.64	3.71	0.60	2.002	0.24
Career adaptability	3.67	0.82	3.85	0.91	3.54	0.73	3.256**	0.38
Job search self-efficacy	2.88	1.00	3.08	1.12	2.76	0.90	2.570**	0.32
Social barriers	2.33	1.02	2.56	1.10	2.19	0.95	3.072**	0.36
Administrative barriers	2.92	1.10	3.02	1.24	2.86	1.01	1.144	0.14

Note. *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$. Gender was coded as 0 = Female; 1 = Male, and Work experience was coded as 0 = No; 1 = Yes.

Table 3
Confirmatory factor analysis results for the measurement model.

Models	SB- χ^2	df	RMSEA	CFI	SRMR	SB-SCF	$\Delta\chi^2/\Delta df$
13-Factor	2383.299	1466	0.044	0.882	0.06	1.145	241.31/45*
5-Factor	2787.349	1474	0.052	0.831	0.06	1.156	946.41/4*
4-Factor	2927.251	1478	0.055	0.814	0.07	1.157	1934.31/3*
3-Factor	3485.655	1481	0.064	0.742	0.08	1.160	2124.94/3*
1-Factor	4766.718	1484	0.082	0.578	0.11	1.163	-

Note: $N = 330$. 13-factor: each variable loaded on a corresponding first order factor. Psychological capital and CAAS dimensions loaded on the corresponding second order factors; 5-factor: psychological capital variables loaded on a single construct as well as CAAS variables, job search self-efficacy loaded on the third factor, and administrative and social barriers loaded on one factor each; 4-factor: psychological capital variables loaded on a single construct as well as career variables, job search self-efficacy loaded on the third factor, and all barriers loaded on a single (fourth) factor. 3-factor: psychological capital and CAAS variables loaded on a common factor, self-efficacy loaded on the second factor, and all barriers loaded on the third factor; 1-factor: all variables loaded on a single factor.

* $p < 0.001$.

terms (the product of psychological capital with social barriers and with administrative barriers), and all controls. We simultaneously regressed JSSE on psychological capital, career adaptability, administrative barriers, social barriers, and the controls. The hypothesized model fit the data well ($\chi^2 = 1.055$, $df = 2$, $p = 0.590$; CFI = 1.000; RMSEA = 0.00; SRMR = 0.004). Therefore, all hypotheses were tested based on this model (see Table 4 and Fig. 1).

Several control variables were significantly related to career adaptability or JSSE. Respondents currently based in Greece rated themselves significantly higher on JSSE ($\beta = -0.434$, $p = 0.023$). Fluency in the local language was positively related to JSSE ($\beta = 0.119$, $p = 0.033$) and career adaptability ($\beta = 0.168$, $p < 0.001$). Training participation was positively ($\beta = 0.339$, $p = 0.009$) and time since leaving Syria negatively ($\beta = -0.009$, $p = 0.010$) related to JSSE.

The first hypothesis proposed that psychological capital is indirectly related to JSSE through career adaptability. The results indicated the indirect effect to be positive and significant (Bootstrapped estimate = 0.124), with the 95% confidence interval excluding zero [0.043, 0.216], which is in line with Hypothesis 1.

Second, we expected hope, optimism, resilience, and self-efficacy together to relate positively to individual career adapt-ability resources and, in turn, translate into higher confidence in performing behaviors relevant for finding a job in the destination country, and in addition we expected that this positive adapting process would be weakened in the face of higher perceived social barriers (Hypothesis 2). As expected, the results (see Table 4) indicated that the relationship between psychological capital and career adaptability was moderated by social career barriers ($\beta = -0.154$, $p < 0.001$). Examining this conditional indirect effect (see Table 5) shows that, when experienced social barriers are low, the positive indirect relationship between psychological capital and JSSE is stronger than when experienced social barriers are higher. Together, these findings provide support for Hypothesis 2.

Third, we inspected whether experiencing administrative barriers moderated the indirect effect of psychological capital with JSSE through career adaptability (Hypothesis 3). Although significant, the sign of the interaction term between psychological capital and administrative barriers was opposite to the hypothesized direction ($\beta = 0.121$, $p = 0.005$). Contrary to our expectations (see Table 5), when experienced administrative barriers were higher, the positive indirect relationship between psychological capital and JSSE was stronger than when such barriers were lower. These results contradict Hypothesis 3.

To rule out the possibility that social and/or administrative barriers moderated other paths among psychological capital, career adaptability, and JSSE, we tested an alternative total effect moderation model. The results indicated that this alternative model did not fit the data well ($\chi^2 = 8.815$, $df = 2$, $p < 0.05$; RMSEA = 0.101; CFI = 0.973; SRMR = 0.002).

Table 4
Psychological capital, career adaptability, and job search self-efficacy: moderating role of social and administrative barriers.

	Career adaptability	Job search self-efficacy
Independent variable		
Psychological capital	0.45 (0.04)***	0.27 (0.08)**
Mediating variables		
Career adaptability	–	0.28 (0.10)**
Moderating variable		
Social barriers	– 0.10 (0.04)	0.00 (0.06)
Administrative barriers	– 0.06 (0.04)	– 0.10 (06)
Interaction terms		
Psychological capital* Social barriers	– 0.15 (0.04)***	–
Psychological capital* Administrative barriers	0.12 (0.04)**	–
Country	– 0.27 (0.14)	– 0.43 (0.19)*
Gender	0.03 (0.08)	– 0.18 (0.11)
Education	– 0.01 (0.04)	0.04 (0.06)
Work experience	0.12 (0.09)	0.21 (0.12)
Language proficiency	0.17 (0.03)***	0.12 (0.06)*
Training Participation	– 0.10 (0.09)	0.34 (0.12)**
Months left	– 0.00 (0.00)	– 0.01 (0.00)*
Intention to stay	0.06 (0.14)	0.23 (0.18)
R ²	0.40	0.34

	Effect	SE	p	LLCI	ULCI
Direct effect	0.265	0.077	< 0.001	0.116	0.469
Total effect	0.390	0.062	= 0.004	0.266	0.504

Indirect effects	Bootstrap- ped estimate	Boot LLCI	Boot ULCI
Career adaptability	0.124	0.043	0.218

N = 330. ***p < 0.001 **p < 0.01 *p < 0.05. Values in parentheses are standard errors of model parameter estimates. Country was coded as 0 = Greece; 1 = The Netherlands, Gender was coded as 0 = Female; 1 = Male, and Work experience was coded as 0 = No; 1 = Yes.

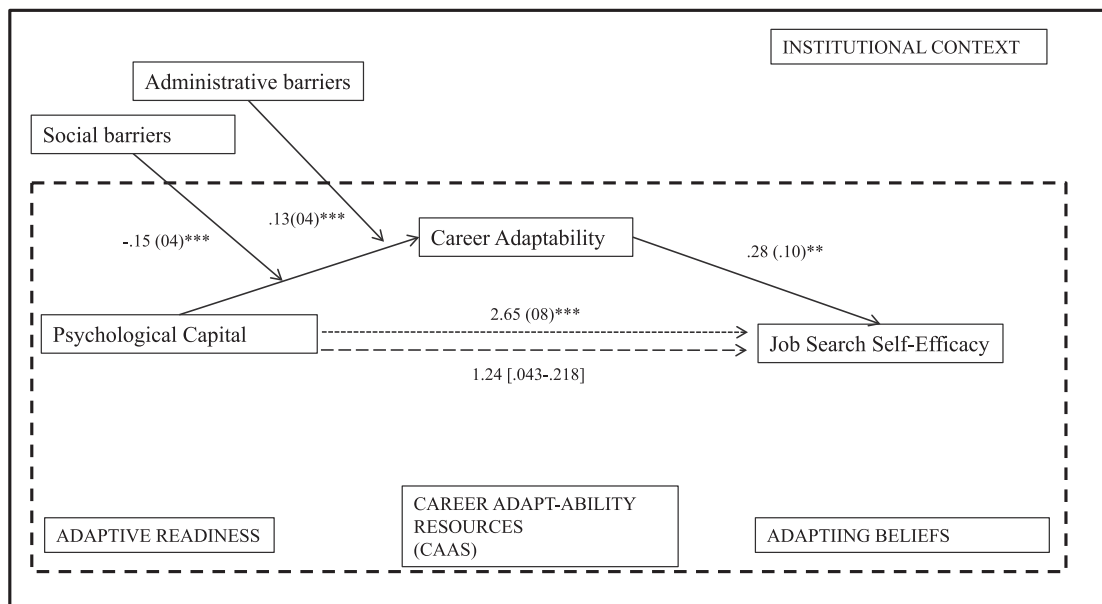


Fig. 1. Results of the final path model.

Table 5
Analysis of the simple slopes of the indirect effect for the levels of social and administrative barriers.

Moderator Variable	Moderator Value	Indirect effect	LLCI	ULCI
Social barriers	– 2SD	0.210	0.069	0.385
	– 1SD	0.167	0.056	0.297
	Mean	0.124	0.043	0.218
	+ 1SD	0.081	0.032	0.155
	+ 2SD	0.039	– 0.002	0.102
Administrative barriers	– 2SD	0.057	0.011	0.147
	– 1SD	0.091	0.034	0.171
	Mean	0.124	0.043	0.218
	+ 1SD	0.158	0.054	0.282
	+ 2SD	0.192	0.063	0.354

4.4. Exploring multigroup differences

In addition to testing the overall model, we explored whether the hypothesized relationships varied as a function of the country in which refugees were located, while controlling for gender, education, work experience, local language proficiency, training participation, length of residence, and intention to stay in the current country. Specifically, we performed a multiple group analysis in several steps (see Table 6). First, we tested the fit of the hypothesized model for the two sub-samples separately (M_{GR} and M_{NL}). The results indicated that the hypothesized model fit both data sets well ($\chi^2 = 0.645$, $df = 2$, $p = 0.724$; CFI = 1.000; RMSEA = 0.00; SRMR = 0.01; and $\chi^2 = 2.567$, $df = 2$; $p = 0.277$; CFI = 0.996; RMSEA = 0.04; SRMR = 0.01). Second, to test whether the same parameter values adequately described the responses of both groups, we fit a multigroup model. The unconstrained multigroup model in which all paths were freely estimated across both groups showed good fit to the data ($\chi^2 = 3.212$, $df = 4$, $p = 0.523$; CFI = 1.000; RMSEA = 0.00; SRMR = 0.01). Third, as an auxiliary test of invariance across countries, multigroup analyses were conducted by imposing equality constraints on all the regression paths (M_{paths}). The fully constrained model fit the data significantly worse than the model without constraints, indicating that differences existed in the tested relationships across the two samples ($\chi^2 = 44.239$, $df = 27$, $p = 0.020$; CFI = 0.928; RMSEA = 0.06; SRMR = 0.03; $\Delta\chi^2_{(df)} = 41.027_{(23)}$, $p = 0.012$). Therefore, we used the unconstrained multigroup model to further explore these differences and address the two exploratory research questions.

First, to explore potential differences in the career adaptation process of the two groups of refugees (RQ 1), we tested the significance of the difference in the indirect effect of psychological capital on JSSE through career adaptability. The test of cross-group differences in indirect effects using non-linear parameter constraints indicated no significant difference in the indirect effects (Bootstrapped estimate = 0.220; 95% CI [– 0.046, 2.026]). Thus, despite the lack of complete invariance of the model across the two groups, the indirect effect of psychological capital on JSSE through career adaptability was positive and significant in both sub-samples.

Second, to investigate whether social or administrative career barriers differentially affected the career adaptation process (RQ 2), we assessed the significance of the difference in the paths connecting the interaction terms to career adaptability. The χ^2 difference test of the models with these two paths constrained demonstrated no significant differences between the two models ($\Delta\chi^2_{(df)} = 1.756_{(2)}$, $p = 0.416$), indicating invariant patterns of interactions of psychological capital with administrative and social barriers in affecting career adaptability. Thus, although the proposed model was not fully invariant across groups, the observed differences were not attributable to the difference in the indirect and conditional relationships. Further inspection of the results indicated these differences stemmed from the role of some controls—namely, language proficiency, work experience, and training had a significantly higher positive influence on JSSE whereas length of stay had a significantly higher negative influence on JSSE in the Dutch sub-sample than in the Greek one.

Table 6
Results of multigroup model comparison.

Models	χ^2	df	RMSEA	CFI	SRMR	$\Delta\chi^2/\Delta df$
Model _{GR}	0.645	2	0.00	1.000	0.01	–
Model _{NL}	2.567	2	0.04	0.996	0.01	–
Multigroup Model _{Unconstrained}	3.212	4	0.00	1.000	0.01	–
Multigroup Model _{Paths}	44.239*	27	0.06	0.928	0.03	41.027/23*
Multigroup Model _{Interaction paths}	4.968	6	0.00	1.000	0.01	1.756/2
Multigroup Model _{Hypothesized paths}	13.665	13	0.02	0.997	0.02	12.003/9

Note: $N = 330$; $N_G = 134$; $N_{NL} = 196$.

* $p < 0.05$.

5. Discussion

The current study investigated the relationship among adaptive readiness, career adaptability, career barriers, and JSSE among post-2014 Syrian refugees in Greece and the Netherlands. First, building upon the notions of CCT (Savickas, 2005), we hypothesized that psychological capital represents an antecedent of JSSE through its impact on career adaptability. As hypothesized, individuals who are more hopeful, optimistic, resilient, and assured in accomplishing the goals they set for themselves are also more confident in engaging in job search behavior in the destination country, most likely due to their enhanced ability to prepare for upcoming work-related tasks, take responsibility for their own employment integration, and explore alternative job opportunities (Savickas & Porfeli, 2012). Our findings provide further support for the CCMA and highlight career adapt-ability resources as critical self-regulatory strengths that aid refugees in adapting to occupational transition within their destination country. However, the significant direct effect from psychological capital to JSSE indicates that in this extreme group additional self-regulatory mechanisms beyond career adapt-ability resources might also be active. In this regard, CCMA in the context of refugees might profit from extending the portfolio of adaptability resources to include self-regulatory resources that have been found to be valuable in other domains of psychosocial adaptation. For example, psychological capital has been shown to be related to emotional regulation (Tosten & Toprak, 2017) and coping (Rabenu, Yaniv, & Elizur, 2016), two mechanisms that are especially important to achieving well-being. Among refugees, who are not only preparing for job search but also adapting in other life domains, these additional self-regulatory resources might be important for becoming and remaining confident about their job search.

Second, we tested the role of both social and administrative career barriers as specific external contingencies that condition the positive relationship among psychological capital, career adaptability, and JSSE. The results were partially in line with our expectations. Although social and administrative career barriers can both be labelled as negative circumstances, their consequences differ. Only the experience of not fitting into the culture of the destination country seems to create feelings of misfit between a person and his/her environment, weakening the positive self-regulatory mechanisms related to psychological capital and, at a high level of social barriers, even diminishing the strength of these relationships. High administrative barriers, although negatively related to JSSE, did not appear to compromise the positive role of adaptive readiness or career adaptability in JSSE. In line with the notion that optimism, as one of the dimensions of psychological capital, can influence the way an individual perceives, feels, and copes with a situation at hand (Lazarus, 1991), for refugees who are more optimistic, hopeful, or resilient, administrative barriers appear to be challenging rather than threatening to their achievement of vocational goals. These individuals may experience administrative barriers as more temporary, inevitable hassles that can stimulate “fight” responses as opposed to obstructing JSSE. Syrians come from a home country that also has complicated bureaucratic procedures; therefore, administrative barriers might also be more in line with what they have experienced in the past. In addition, although these types of barriers are likely to disappear once handled, overcoming or combatting social barriers may form a much more long-term challenge for the post-2014 refugees.

5.1. Practical implications

The current study yields practical insights for both organizations and policy makers. First, it identifies the need for more comprehensive efforts in facilitating social integration. Although national anti-discrimination laws represent a major improvement to integration policies across Europe, they are often poorly implemented (Huddleston et al., 2015). Refugee specific social integration policies might improve the implementation of laws, reduce social barriers, and improve social and career integration. In addition, organizational initiatives for stimulating contact, communication, and cultural exchange between refugees and locals could help.

Second, this study showed that, despite the structural differences between Greece and the Netherlands, the indirect relationship between psychological capital and job search self-efficacy through career adapt-ability resources was comparable. This indicates that refugee-integration policies need to account for individual differences across different sub-groups. Sub-groups might be determined not only by the country in which refugees are currently located, but also by individual characteristics such as work experience, language skills, and psychological capital. Vulnerable individuals who might possess fewer individual resources to draw upon, and as such might be at greater risk of passively responding to career-related challenges and employment exclusion, need special attention.

Third, evidence-based intervention programs are needed to facilitate job search and labor market integration. Career support interventions for refugees, when existent, mostly represent an adaptation or mixture of programs initiated because of practical necessities as opposed to being based on strong theoretical foundations. Often, training interventions focus exclusively on the provision of job search skills (Shekhar et al., 2016), whereas those targeting the stimulation of self-regulatory resources or coping with the hardships of unemployment are not prevalent. Accordingly, relatively few refugees who participated in this study reported they had participated in a training program they perceived to be helpful to their job search (27% in the Netherlands and only 12% in Greece). This suggests that offering training programs focused on strengthening and developing psychological capital and/or career adaptability may be beneficial for developing confidence in a job search. These training programs would need to go beyond language or practical training to positively affect the self-management of labor market entry. Moreover, CCT-based life-design counseling (Savickas, 2015) could provide a form of career support because it encourages individuals to integrate different professional selves, form intentions, set goals, and regain a sense of purpose—all of which are needed for refugees to adapt and build their career in a new country. An online/mobile training module may be suited for those who have not yet reached their final destination and might still change location. Finally, the negative relation between length of stay in the current country and JSSE indicates that interventions might be particularly valuable early on in the process of resettlement.

5.2. Limitations and suggestions for future research

The current study has several limitations. First, the cross-sectional nature of the study means that causal inferences could not be tested. Therefore, we cannot rule out the possibility of reversed causality among psychological capital, career adaptability, and JSSE. Despite building our conceptual model on the CCMA and earlier empirical studies, longitudinal research is needed to test the directionality of these relationships over time. However, despite the undebatable value of longitudinal research among refugees, this is challenging in terms of feasibility because of the still volatile living arrangements of many refugees, especially in the case of Greece, where the majority of participants did not intend to stay.

Second, relying exclusively on self-rated survey measures increased the risk of common method variance (CMV; Podsakoff, MacKenzie, & Podsakoff, 2012). We tried to account for such risk by performing a series of alternative factor analyses but found the proposed measurement model to have superior fit compared to alternative models. Furthermore, the fact that our hypothesized conditional indirect effect was supported despite CMV possibly being an issue should be interpreted as evidence that these interaction effects exist (Siemsen, Roth, & Oliveira, 2010). Nevertheless, the inclusion of multi-source data and objective indicators of employment success is recommended in future work. Also, complementing survey data with qualitative insights would provide additional insights and opportunities to triangulate findings. It would, for example, enable us to know whether participants tend to focus on job search self-efficacy for certain types of jobs (e.g., legal versus illegal; survival job versus job in line with one's qualifications).

Third, the current study focused exclusively on job search self-efficacy as an outcome. From a consequential validity perspective, future research should endeavor to broaden the scope of the current investigation by examining both additional subjective (ranging from perceived chances on the labor market to career satisfaction) and objective (ranging from actual job search and job offers to objective career success) outcomes.

Fourth, participants in this study were sampled through snowball sampling. Although this is often the default in conducting research among people from sensitive populations (Gammell, Ndahiro, Nicholas, & Windsor, 1993), and even though we approached numerous organizations to secure a diverse sample of participants, this approach may have affected the generalizability of our findings. Thus, a replication study in a larger, representative sample is called for. In addition, the current study focused only on refugees from Syria, who presently represent the largest group. Future studies should examine the generalizability of our findings to refugees from other countries, such as Afghanistan, South Sudan, and Eritrea, in order to provide practical recommendations attuned to the needs of these groups.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jvb.2017.11.001>.

References

- Aspinwall, L. G., Richter, L., & Hoffman, R. R. I. I. (2001). Understanding how optimism works: An examination of optimists' adaptive moderation of belief and behavior. In E. C. Chang (Ed.), *Optimism and pessimism: Implications for theory, research, and practice* (pp. 217–238). Washington, DC: American Psychological Association.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*, 191–215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>.
- Bilgili, Ö., Huddleston, T., & Joki, A. L. (2015). *The dynamics between integration policies and outcomes: Synthesis of the literature*. Barcelona Centre for International Affairs and the Migration Policy Group.
- Bloch, A. (2002). *Refugees' opportunities and barriers in employment and training*. Leeds, UK: Corporate Document Services.
- Bloch, A. (2007). Methodological challenges for national and multi-sited comparative survey research. *Journal of Refugee Studies*, *20*, 230–247. <http://dx.doi.org/10.1093/jrs/fem002>.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, *1*, 185–216. <http://dx.doi.org/10.1177/135910457000100301>.
- Brown, D. J., Cober, R. T., Kane, K., Levy, P. E., & Shalhoop, J. (2006). Proactive personality and the successful job search: A field investigation with college graduates. *Journal of Applied Psychology*, *91*, 717–726. <http://dx.doi.org/10.1037/0021-9010.91.3.717>.
- Brown, S. D., & Lent, R. W. (1996). A social cognitive framework for career choice counseling. *The Career Development Quarterly*, *44*, 354–366. <http://dx.doi.org/10.1002/j.2161-0045.1996.tb00451.x>.
- Buber-Ennser, I., Kohlenberger, J., Rengs, B., Al Zalak, Z., Goujon, A., Striessnig, E., ... Lutz, W. (2016). Human capital, values, and attitudes of persons seeking refuge in Austria in 2015. *PLoS One*, *11*, e0163481. <http://dx.doi.org/10.1371/journal.pone.0163481>.
- Byrne, B. M., Shavelson, R. J., & Muthen, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin*, *105*, 456–466. <http://dx.doi.org/10.1037/0033-2909.105.3.456>.
- Cebolla-Boado, H., & Finotelli, C. (2015). Is there a north-south divide in integration outcomes? A comparison of the integration outcomes of immigrants in southern and northern Europe. *European Journal of Population*, *31*, 77–102. <http://dx.doi.org/10.1007/s10680-014-9327-8>.

- Chan, S. H., Mai, X., Kuok, O. M., & Kong, S. H. (2016). The influence of satisfaction and promotability on the relation between career adaptability and turnover intentions. *Journal of Vocational Behavior*, 92, 167–175. <http://dx.doi.org/10.1016/j.jvb.2015.12.003>.
- Chen, D. J. Q., & Lim, V. K. G. (2012). Strength in adversity: The influence of psychological capital on job search. *Journal of Organizational Behavior*, 33, 811–839. <http://dx.doi.org/10.1002/job.1814>.
- Colic-Peisker, V., & Tilbury, F. (2006). Employment niches for recent refugees: Segmented labour market in 21st-century Australia. *Journal of Refugee Studies*, 19, 203–229. <http://dx.doi.org/10.1093/jrs/fej016>.
- Colic-Peisker, V., & Walker, I. (2003). Human capital, acculturation and social identity: Bosnian refugees in Australia. *Journal of Community and Applied Social Psychology*, 13, 337–360. <http://dx.doi.org/10.1002/casp.743>.
- Creed, P. A., Patton, W., & Bartrum, D. (2004). Internal and external barriers, cognitive style, and the career development variables of focus and indecision. *Journal of Career Development*, 30, 277–294. <http://dx.doi.org/10.1023/B:JOCDD.0000025116.17855.ea>.
- Dawis, R. V., & Lofquist, L. H. (1984). *A psychological theory of work adjustment: An individual-differences model and its applications*. Minneapolis, MN: University of Minnesota Press.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12, 1–22. <http://dx.doi.org/10.1037/1082-989X.12.1.1>.
- Edwards, J. R., & Shipp, A. J. (2007). The relationship between person-environment fit and outcomes: An integrative theoretical framework. In C. Ostroff, & T. A. Judge (Eds.), *Perspectives on organizational fit* (pp. 209–258). San Francisco, CA: Jossey Bass.
- Flannery, W. P., Reise, S. P., & Yu, J. (2001). An empirical comparison of acculturation models. *Personality and Social Psychology Bulletin*, 27, 1035–1045. <http://dx.doi.org/10.1177/0146167201278010>.
- Gammell, H., Ndahiro, A., Nicholas, N., & Windsor, J. (1993). *Refugees (political asylum seekers): Service provision and access to the NHS*. London, UK: Newham Health Authority and Newham Healthcare.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). Can you see the real me? A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16, 343–372. <http://dx.doi.org/10.1016/j.leaqua.2005.03.003>.
- Guan, Y., Guo, Y., Bond, M. H., Cai, Z., Zhou, X., Xu, J., & Wang, Y. (2014). New job market entrants' future work self, career adaptability and job search outcomes: Examining mediating and moderating models. *Journal of Vocational Behavior*, 85, 136–145. <http://dx.doi.org/10.1016/j.jvb.2014.05.003>.
- Guo, Y., Guan, Y., Yang, X., Xu, J., Zhou, X., She, Z., ... Pan, Z. (2014). Career adaptability, calling and the professional competence of social work students in China: A career construction perspective. *Journal of Vocational Behavior*, 85, 394–402. <http://dx.doi.org/10.1016/j.jvb.2014.09.001>.
- Hartog, J., & Zorlu, A. (2009). How important is homeland education for refugees' economic position in The Netherlands? *Journal of Population Economics*, 22, 219–246. <http://dx.doi.org/10.1007/s00148-007-0142-y>.
- Heinesen, E., Husted, L., & Rosholm, M. (2013). The effects of active labour market policies for immigrants receiving social assistance in Denmark. *IZA Journal of Migration*, 2, 1–22. <http://dx.doi.org/10.1186/2193-9039-2-15>.
- Hirschi, A., Herrmann, A., & Keller, A. C. (2015). Career adaptivity, adaptability, and adapting: A conceptual and empirical investigation. *Journal of Vocational Behavior*, 87, 1–10. <http://dx.doi.org/10.1016/j.jvb.2014.11.008>.
- Hirschi, A., Lee, B., Porfeli, E. J., & Vondracek, F. W. (2013). Proactive motivation and engagement in career behaviors: Investigating direct, mediated, and moderated effects. *Journal of Vocational Behavior*, 83, 31–40. <http://dx.doi.org/10.1016/j.jvb.2013.02.003>.
- Huddleston, T., Bilgili, O., Joki, A., & Vankova, Z. (2015). Migrant integration policy index 2015 (Retrieved from MIPEX website) <http://www.mipex.eu/netherlands>.
- Jayasuriya, L., Sang, D., & Fielding, A. (1992). *Ethnicity, immigration and mental illness: A critical review of Australian research*. South Carlton, Australia: Bureau of Immigration Research.
- Karantinos, D. (2016). *Labor market integration of asylum seekers and refugees Greece*. Brussels, Belgium: European Commission. Retrieved from <http://ec.europa.eu/social/BlobServlet?docId=15909&langId=en>.
- Koen, J., Klehe, U. C., Van Vianen, A. E., Zikic, J., & Nauta, A. (2010). Job search strategies and reemployment quality: The impact of career adaptability. *Journal of Vocational Behavior*, 77, 126–139. <http://dx.doi.org/10.1016/j.jvb.2010.02.004>.
- Kogan, I. (2016). Integration policies and immigrants' labor market outcomes in Europe. *Sociological Science*, 3, 335–358. <http://dx.doi.org/10.15195/v3.a16>.
- Konle-Seidl, R., & Bolits, G. (2016). *Labor market integration of refugees: Strategies and good Practices: Study*. European Parliament <http://dx.doi.org/10.2861/816219>.
- Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, 46, 352–367. <http://dx.doi.org/10.1037/0003-066X.46.4.352>.
- Lorenz, T., Beer, C., Pütz, J., & Heinitz, K. (2016). Measuring psychological capital: Construction and validation of the compound PsyCap scale (CPC-12). *PLoS One*, 11, e0152892. <http://dx.doi.org/10.1371/journal.pone.0152892>.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. New York, NY: Oxford University Press.
- Maggiore, C., Johnston, C. S., Krings, F., Massoudi, K., & Rossier, J. (2013). The role of career adaptability and work conditions on general and professional well-being. *Journal of Vocational Behavior*, 83, 437–449. <http://dx.doi.org/10.1016/j.jvb.2013.07.001>.
- Marmot, M. G., & Wilkinson, R. G. (2006). *Social determinants of health*. New York, NY: Oxford University Press.
- McKenna, B., Zacher, H., Ardabili, F. S., & Mohebbi, H. (2016). Career adapt-abilities scale—Iran form: Psychometric properties and relationships with career satisfaction and entrepreneurial intentions. *Journal of Vocational Behavior*, 93, 81–91. <http://dx.doi.org/10.1016/j.jvb.2016.01.004>.
- Muthén, B. O., & Muthén, L. K. (2012). *Mplus version 7: user's guide*. Muthén & Muthén.
- Ortensi, L. E. (2015). The integration of forced migrants into the Italian labor market. *Journal of Immigrant & Refugee Studies*, 13, 179–199. <http://dx.doi.org/10.1080/15562948.2014.907952>.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539–569. <http://dx.doi.org/10.1146/annurev-psych-120710-100452>.
- Rabenu, E., Yaniv, E., & Elizur, D. (2016). The relationship between psychological capital, coping with stress, well-being, and performance. *Current Psychology*, 1–13. <http://dx.doi.org/10.1007/s12144-016-9477-4>.
- Rudolph, C. W., Lavigne, K. N., & Zacher, H. (2017). Career adaptability: A meta-analysis of relationships with measures of adaptivity, adapting responses, and adaptation results. *Journal of Vocational Behavior*, 98, 17–34. <http://dx.doi.org/10.1016/j.jvb.2016.09.002>.
- Saks, A. M., & Ashforth, B. E. (1999). Effects of individual differences and job search behaviors on the employment status of recent university graduates. *Journal of Vocational Behavior*, 54, 335–349. <http://dx.doi.org/10.1006/jvbe.1998.1665>.
- Saks, A. M., Zikic, J., & Koen, J. (2015). Job search self-efficacy: Reconceptualizing the construct and its measurement. *Journal of Vocational Behavior*, 86, 104–114. <http://dx.doi.org/10.1016/j.jvb.2014.11.007>.
- Santilli, S., Nota, L., Ginevra, M. C., & Soresi, S. (2014). Career adaptability, hope and life satisfaction in workers with intellectual disability. *Journal of Vocational Behavior*, 85, 67–74. <http://dx.doi.org/10.1016/j.jvb.2014.02.011>.
- Savickas, M. (2015). *Life-design counseling manual*. (Rootstown, Ohio: Mark L. Savickas).
- Savickas, M. L. (1997). Career adaptability: An integrative construct for life-span, life-space theory. *The Career Development Quarterly*, 45, 247–259. <http://dx.doi.org/10.1002/j.2161-045.1997.tb00469.x>.
- Savickas, M. L. (2005). The theory and practice of career construction. In R. W. Lent, & S. D. Brown (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42–70). Hoboken, NJ: John Wiley & Sons.
- Savickas, M. L., & Porfeli, E. J. (2012). Career adapt-abilities scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80, 661–673. <http://dx.doi.org/10.1016/j.jvb.2012.01.011>.
- Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current Directions in Psychological Science*, 2, 26–30. <http://dx.doi.org/10.1111/1467-8721.ep10770572>.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology*, 67, 1063–1087. <http://dx.doi.org/10.1037/0022-3514.67.6.1063>.
- Shekhar, A., Barkbu, B., Batini, N., Berger, H., Detragiache, E., Dizioli, A., ... Topalova, P. (2016). *The refugee surge in Europe: Economic challenges*. International

- Monetary Fund. (Retrieved from) <https://www.imf.org/external/pubs/cat/longres.aspx?sk=43609>.
- Siemen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13, 456–476. <http://dx.doi.org/10.1177/1094428109351241>.
- Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14, 287–305. <http://dx.doi.org/10.1177/1094428110369842>.
- Su, R., Murdock, C. D., & Rounds, J. (2015). Person-environment fit. In P. J. Hartung, M. L. Savickas, & W. B. Walsh (Eds.). *APA handbook of career interventions* (pp. 81–98). Washington, DC: American Psychological Association.
- Swanson, J. L., Daniels, K. K., & Tokar, D. M. (1996). Assessing perceptions of career-related barriers: The career barriers inventory. *Journal of Career Assessment*, 4, 219–244. <http://dx.doi.org/10.1177/106907279600400207>.
- Swanson, J. L., & Tokar, D. M. (1991). Development and initial validation of the career barriers inventory. *Journal of Vocational Behavior*, 39, 344–361. [http://dx.doi.org/10.1016/0001-8791\(91\)90043-L](http://dx.doi.org/10.1016/0001-8791(91)90043-L).
- Swanson, J. L., & Woitke, M. B. (1997). Theory into practice in career assessment for women: Assessment and interventions regarding perceived career barriers. *Journal of Career Assessment*, 5, 443–462. <http://dx.doi.org/10.1177/106907279700500405>.
- Tolentino, L. R., Garcia, P. R. J. M., Lu, V. N., Restubog, S. L. D., Bordia, P., & Plewa, C. (2014). Career adaptation: The relation of adaptability to goal orientation, proactive personality, and career optimism. *Journal of Vocational Behavior*, 84, 39–48. <http://dx.doi.org/10.1016/j.jvb.2013.11.004>.
- Tosten, R., & Toprak, M. (2017). Positive psychological capital and emotional labor: A study in educational organizations. *Cogent Education*, 4, 1301012. <http://dx.doi.org/10.1080/2331186X.2017.1301012>.
- United Nations High Commissioner for Refugees (2017a). Global trends: Forced displacement in 2016 (Retrieved from) <http://www.unhcr.org/5943e8a34.pdf>.
- United Nations High Commissioner for Refugees (2017b). Mediterranean situation (Retrieved from) <http://data2.unhcr.org/en/situations/mediterranean>.
- Zacher, H., & Griffin, B. (2015). Older workers' age as a moderator of the relationship between career adaptability and job satisfaction. *Work, Aging and Retirement*, 1, 227–236. <http://dx.doi.org/10.1093/workar/wau009>.
- Zikic, J., & Klehe, U. C. (2006). Job loss as a blessing in disguise: The role of career exploration and career planning in predicting reemployment quality. *Journal of Vocational Behavior*, 69, 391–409. <http://dx.doi.org/10.1016/j.jvb.2006.05.007>.