BRIEF REPORT

Perception of Discrimination in Employment and Health in Refugees and Immigrants

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Unemployment is associated with poor health among refugees and immigrants; however, the degree to which discrimination in employment contributes to poor health remains unclear because of methodological limitations. This cross-sectional study aims to investigate factors associated with perceived discrimination, ethnicity and migration status, and their implication on health (self-rated health [SRH] and depression). Perceived discrimination was investigated in 273 Iraqi skilled workers, refugees, and immigrants who are members of a professional scientific organization. It was hypothesized that unemployment, ethnicity (Arab), and migration status (refugee) would be associated with perceived discrimination. Additionally, it was hypothesized that participants who endorse discrimination are more likely to report poor health. Results revealed that more individuals who were unemployed (46.4%) reported perceived discrimination, $\chi^2(1, N = 273) = 6.63, p < 0.00$.05; however, when linear regression modeling was applied, age (odds ratio [OR] = 1.36), gender (OR = 1.362.13), and ethnicity (OR = 2.15), but not migration status, became significant predictors of discrimination. With respect to health, age (OR = 2.25), length of residency (OR = .93), language skills (OR = 3.00), and perception of discrimination (OR = 2.12) were predictors of SRH, while ethnicity (OR = 3.93), age (OR = 2.93) 1.39), and discrimination (QR = 3.26) were significant predictors of depression. Notably, perceived discrimination was a predictor in both health variables. In conclusion, there appears to be a link between discrimination and health in a homogenous refugee and immigrant sample.

Keywords: perception of discrimination, refugees, immigrants, self-rated health, employment

Unemployment is cited as an integral contributor to poor somatic and mental health in refugees and immigrants (Pascoe & Smart Richman, 2009), suggesting a link between unemployment and the prevalence of poor health. While earlier literature has cited refugee- and immigrant-centered explanations for employment difficulty, more recent studies are accounting for discrimination as

one societal factor impeding employment (Widner & Chicoine, 2011). Perceived discrimination is linked to poor self-rated health (SRH) and depression (De Castro et al., 2010; Noh & Kaspar, 2003). Several factors can elicit discrimination: ethnicity, and, less researched, migration status. Unlike ethnicity (Williams & Mohammed, 2009), the role of migration status in discrimination is

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We thank the International Society of Iraqi Scientists for hosting the study; the survey is on their Web page.

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unclear due to methodological limitations. Often, studies define and use refugees and immigrants interchangeably, with the belief they have similar experiences (Edge & Newbold, 2013).

However, their integration experience is not uniform (Bozorgmehr & Sabagh, 1991). Refugees are viewed differently than immigrants in the new country. Refugees are viewed as less likely to participate in the labor market and a burden to the welfare system, whereas immigrants are viewed as tax-paying individuals who participate in the labor market (Menz, 2009). Such societal views can shape discriminatory feelings and behavior toward refugees. Refugees fare worse in terms of health and employment than immigrants, even when compared with immigrants of the same background (Edge & Newbold, 2013). A review of discrimination and health literature in immigrants and refugees found that studies often did not distinguish between immigrants and refugees, with only a smaller number that focused on refugees. Furthermore, a large sum of the publications did not distinguish between participants' ethnicity and tended to group racial groups together. Thus, these comparative studies do not account for refugees and immigrants of similar backgrounds, the same country of origin, their education level, nor their labor participation. The lack of representative data on refugees in this area has limited our understanding of the role of discrimination in postdisplacement integra-

To address this gap in the literature, this study aimed to investigate the role of ethnicity and migration status concurrently in perception of discrimination in employment, and its implication on SRH and depression in skilled immigrants and refugees from Iraq, of Arab and Chaldean decent. Individuals from this part of the world are of a particular interest as they have experienced increased discrimination post-9/11 terrorist attacks in the United States (Ibish, 2003), providing an ideal group to investigate whether migration status or ethnicity play a role in perceived discrimination. It was hypothesized that unemployment, ethnicity, and migration status would be associated with greater perceived discrimination; unemployed immigrants, refugees, and those of Arab descent were expected to report more discrimination. Additionally, it was hypothesized that the association between poor health and depression with discrimination would remain after adjusting for ethnicity and unemployment.

Method

Participants and Procedure

Two million Iraqis have emigrated out of Iraq following the war in 2003 (Yakushko & Chronister, 2005). Although Iraq's population is diverse, the two prominent groups are those of Arab decent and individuals of non-Arab decent, or Chaldeans. Arabs are native to the Arabian Peninsula, they speak Arabic, and the majority are Muslim. Chaldeans are native to northern Iraq. They are Catholics and speak a version of neo-Aramaic. Despite these differences, Arabs and Chaldeans are very similar culturally and socioeconomically. In fact, most Chaldeans speak Arabic and are integrated within Arab communities.

In collaboration with the International Society of Iraqi Scientists, we surveyed 273 refugees and immigrants for this study. Inclusion criteria included skilled-worker refugees and immigrants with Bachelor's degrees or higher, who emigrated from Iraq after

the Gulf War in 1991 and who reside in the United States. Twenty participants were excluded for the following reasons: 13 entered the United States before 1991, 3 entered on student visas, 1 was retired, and 1 gained residency through marriage. At the time of the survey, the society consisted of 650 members. The survey was sent out in an e-mail to all members; 150 e-mails were returned due to wrong e-mail addresses. The response rate was 35%.

The study's information sheet (Wayne State University institutional review board) and an electronic link to the survey (Survey Monkey) were distributed to members' e-mails. The study was approved by the Wayne State University institutional review board in Detroit, Michigan.

Measures

Discrimination in employment was measured by "Do you feel your current country of residence is fair to you in regard to employment?" and depression by "How often do you feel depressed?" Questions were measured on a 4-point scale (1 = rarely to 4 = very often). SRH was assessed by "Overall, how would you rate your health?" measured on a 5-point Likert scale (1 = poor health to 5 = excellent health). This single-item global measure of mental health is similar to the single item used to measure SRH, which has been well validated and is widely used (Idler & Benyamini, 1997). All questions were translated into Arabic and were later dichotomized.

Data Analysis

A chi-square test of independence was used to examine the association between perceived discrimination, employment, and health variables and covariates (migration status, ethnicity, age, language skills, and length of residency). Three logistic regression analyses were used to predict (a) perceived discrimination, (b) SRH, and (c) depression, with covariates as independent variables for each of the three analyses. The level of significance was set at p < .05 with all analyses conducted using IBM SPSS version 20.

Results

The sample demographics are presented in Table 1. A chi-square test of independence examined the association between discrimination, self-reported health, and depression, respectively, with covariates. With respect to discrimination, more individuals who were unemployed (46.4%), reported perceived discrimination, $\chi^2(1, N=273)=6.63, p<.05$. With regards to depression, employment, $\chi^2(1, N=273)=10.22, p<.02$, language skills, $\chi^2(1, N=273)=5.20, p<.05$, and ethnicity, $\chi^2(1, N=273)=16.12, p<.001$, were statistically significant. Those who were unemployed (70.7%), who reported "fair-to-poor" language skills (65.9%), and who were of Arab decent (68.1%) were more likely to feel depressed. With respect to SRH, gender, $\chi^2(5, N=273)=9.11, p<.05$, and employment, $\chi^2(1, N=273)=129.4, p<.001$, were statistically significant. More females (47.1%) and those unemployed (90.3%) reported "fair-to-poor" SRH.

A logistic regression analysis was conducted to predict perception of discrimination, using covariates as predictors. There was a significant association between age and discrimination (odds ratio

Table 1 Demographic Characteristic of Participants (N = 273)

	Ove	erall
Characteristic	n	%
Migration status		
Refugee	151	55.5%
Immigrant	122	44.5%
Ethnicity		
Arab	152	55.7
Chaldean	109	39.9
Gender		
Male	192	70.3
Female	76	27.8
Age, years		
18–34	73	26.7
35–44	70	25.6
45–54	61	22.3
55 and older	64	23.4
Education		
Bachelor's degree	143	53.8
Master's/doctoral degree	123	46.2
Employment		
Ünemployed	87	31.9
Employed	183	67.0
Marital status		
Single	51	18.7
Married	209	76.6
Language skills		
Excellent to good	174	63.7
Fair to poor	87	31.9
	M	SD
Length of residency based on immigration status (years)		-
Refugees	5.60	.52
Immigrants	11.23	.76

[OR] = 1.36); older individuals were more likely to perceive discrimination. Furthermore, there was an association between discrimination and gender (OR = 2.13) and discrimination and ethnicity (OR = 2.15). Women and Arabs were more likely to perceive discrimination (Table 2).

A logistic regression analysis was conducted to predict SRH and depression, respectively. In the SRH model, age (OR = 2.25), years in country (OR = .93), language skills (OR = 3.00), and

perception of discrimination (OR = 2.12) made significant contributions to the prediction (Table 3). Older participants, individuals with poor language skills, and those endorsing discrimination reported "fair-to-poor" SRH. Lastly, linear regression analysis of depression revealed that ethnicity (OR = 3.92), age (OR = 1.39), and discrimination (OR = 3.26) were significant predictors (Table 4). Older individuals, Arabs, and those endorsing discrimination reported more depressive symptoms (Table 4).

Discussion

The first aim of this study was to investigate the role of both ethnicity and migration status on perception of discrimination in employment in skilled immigrants and refugees from Iraq. This study found that those who were unemployed were more likely to report discrimination in gaining employment. When other factors were considered, unemployment was not a predictor of perceived discrimination. Additionally, contrary to our hypothesis, only ethnicity, not migration, was a significant predictor of discrimination, possibly due to ethnicity being more salient than one's migration status.

Arabs were more likely to cite discrimination, a finding that perhaps reflects an increase in discrimination targeting Arabs following the events of 9/11 (Ibish, 2003). Furthermore, experiments show applicants with Arab-sounding names were less likely to be considered for employment (Widner & Chicoine, 2011). Considering this, it is comprehensible that ethnicity would overshadow migration status.

Our findings indicate that older participants perceived more discrimination than did younger participants, indicating that older individuals may be experiencing difficulty integrating into the new culture. Furthermore, more females endorsed discrimination in our sample. Our findings challenge previous research on gender and perceived discrimination, as men tend to report more discrimination (Banks et al., 2006). Women's perception in this situation may be a reflection of the dichotomous relationship between race and gender. Women newcomers face "multiple discriminations" influenced by compounding factors, like gender and race (Pittway & Bartolomei, 2011).

The second aim of this study is to investigate health implications associated with perceived discrimination. Our findings

Table 2
Summary of Logistic Regression Analysis Predicting Discrimination

Variable	В	SE	OR	95% CI	Wald statistic	p
Age	.31	.15	1.36	1.02, 1.83	4.45	<.05
Gender	.76	.36	2.13	1.06, 4.27	4.54	<.05
Education	.27	.34	1.31	0.68, 2.55	0.61	ns
Length of residency	.01	.23	1.01	0.96, 1.06	0.14	ns
Language skills	30	.34	0.74	0.38, 1.43	0.80	ns
Employment	29	.34	0.77	0.40, 1.51	0.56	ns
Migration status	03	.35	0.97	0.50, 1.94	0.01	ns
Ethnicity	.76	.32	2.15	1.15, 4.01	5.73	<.05

Note. Age and length of residency are continuous variables. Gender (male vs. female), education (bachelor's vs. master's/doctoral degree), language skills (excellent to good vs. fair to poor), employment (employed vs. unemployed), immigration status (refugee vs. immigrant), and ethnicity (Arab vs. non-Arab) are dichotomous variables. Reference groups are as follows: gender (female), education (bachelor's degree), language skills (excellent to good), employment (employed), migration status (immigrants), and ethnicity (non-Arab). OR = odds ratio; CI = confidence interval; ns = ods significant.

Table 3
Logistic Regression Analysis Predicting SRH

Variable	В	SE	OR	95% CI	Wald statistic	p
Age	.81	.16	2.25	1.62, 3.09	24.66	<.001
Gender	.12	.38	1.13	.52, 2.36	0.11	ns
Education	.27	.36	1.31	.65, 2.65	0.56	ns
Length of residency (years)	07	.03	0.93	.88, .98	7.37	<.05
Language skills	1.10	.34	3.00	1.53, 5.90	10.19	<.001
Employment	.58	36	1.79	.89, 3.61	2.62	ns
Migration status	56	.37	0.58	.28, 1.17	2.36	ns
Ethnicity	.21	.33	1.23	.65, 2.32	0.38	ns
Discrimination	.75	.33	2.12	1.11, 4.07	5.14	<.05

Note. SRH was dichotomized as poor to fair versus good to excellent, where fair to poor was used a reference. Age and length of residency are continuous variables, gender (male vs. female), education (bachelor's vs. master's/doctoral degree), language skills (excellent to good vs. fair to poor), employment (employed vs. unemployed), migration status (refugee vs. immigrant), perception of discrimination, and ethnicity (Arab vs. non-Arab) are dichotomous variables. Reference groups are as follows: gender (female), education (bachelor's degree), language skills (excellent to good), employment (employed), migration status (immigrants), and ethnicity (non-Arab). SRH = self-rated health; OR = odds ratio; CI = confidence interval; ns = not significant.

revealed that discrimination is linked to poor SRH and depression. Our results are consistent with a plethora of research connecting poor health with discrimination (Pascoe & Smart Richman, 2009). Additionally, ethnicity, not migration status, is associated with more depression; Arabs reported more depression than did non-Arabs. These findings may be a reflection of discrimination as a mediating factor in depression; however, a more in-depth study is needed.

Furthermore, other variables were significant predictors of depression and SRH (ethnicity, age, length of residency, and language skills). Better SRH is associated with a shorter period of residency in the host country. Newcomers tend to report better health during their first years in the host country; however, the effects are often reversed with increased time in the host country (Takeuchi et al., 2002). This is due to diminishing health factors over time that were once protective and to poor health habits (Abraido-Lanza, Chao, & Florez, 2005; Hyman, 2007). Furthermore, poor language skills are associated with poor self-rated health in our sample, in accordance with studies

finding that lack of English proficiency is a significant variable in refugee adaptation (Ng et al., 2011).

In conclusion, unemployment has been believed to contribute to the poor health of immigrants and refugees after migration. However, perceived discrimination in employment is another important factor affecting the health of these groups. Discrimination regarding employability is a salient factor linked to health in our sample. The findings of this study indicate that discrimination with respect to employment is linked to ethnicity, and not migration status, and that discrimination is related to poor self-reported health. Findings suggest that it is a variable that needs to be considered in the newcomers' experience and should be addressed by policymakers when discussing integrative programs for refugees and immigrants.

This study has several limitations. A causal relationship among our variables cannot be determined, as the study is a cross-sectional comparison. Respondents were recruited from a scientific organization, which could lead to selection bias and challenge the generalizability of the results. Additionally, the

Table 4
Logistic Regression Analysis Predicting Depression

Variable	В	SE	OR	95% CI	Wald statistic	p
Age	.33	.15	1.39	1.02, 1.87	4.49	<.05
Gender	29	.37	0.75	.36, 1.54	0.62	
Education	.15	.35	1.16	.59, 2.28	0.18	
Length of residency (years)	05	.03	.95	.91, 1.00	3.65	
Language skills	.52	.35	1.52	.77, 3.01	1.45	
Employment	.69	.36	1.98	.99, 3.99	3.70	
Migration status	.13	.14	1.12	.58, 2.25	0.14	
Ethnicity	1.37	.33	3.92	2.06, 7.244	17.45	<.001
Discrimination	1.18	.34	3.26	1.68, 6.31	12.21	<.001

Note. Depression was dichotomized (rarely to sometimes vs. often to very often), where rarely to sometimes was used as a reference. Age and length of residency are continuous variables. Gender (male vs. female), education (bachelor's vs. master's/doctoral degree), language skills (excellent to good vs. fair to poor), employment (employed vs. unemployed), migration status (refugee vs. immigrant), perception of discrimination (fair vs. unfair), and ethnicity (Arab vs. non-Arab) are dichotomous variables. Reference groups are as follows: gender (female), education (bachelor's degree), language skills (excellent to good), employment (employed), migration status (immigrants), ethnicity (non-Arab), and discrimination (Fair). OR = odds ratio; CI = confidence interval.

relationship between health and discrimination is a complex one. It is possible that discrimination leads to poor health; however, poor health may negatively affect individuals' resilience.

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