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Health and Depression in Women From the Former Soviet Union Living in the United States and Israel

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Postimmigration adjustment is affected by demographic and health characteristics, as well as national resources. Since 1989, more than a million people emigrated from the former Soviet Union (FSU) to the United States and Israel. These countries differ substantially in health systems and immigrant benefits. The purpose of this study is to compare depressed mood between midlife women from the FSU who reside in the United States and Israel, controlling for demographic and health characteristics. The analysis includes 72 women, 36 from each country, who comprise subsets of larger studies and were matched on age and years since immigration. Women were aged 42–70, and immigrated fewer than 8 years prior to recruitment. Using multiple regression analyses it was found that living in the United States, having lower self-reported health status, and having arthritis predicted higher depression scores. Future cross-national interdisciplinary research should be directed toward identifying specific contextual factors that will guide interventions and influence health policy for new immigrants.

KEY WORDS: immigrant women; former Soviet Union; mental health; immigrant health policy.

INTRODUCTION

Global migration has increased considerably during the past decade, and includes an unprecedented number of people who left the former Soviet Union (FSU) as a result of its dissolution in 1989. Emigres include Jews and Christians who were discriminated against because of their religious backgrounds, as well as others seeking improved social and economic conditions. Soviet Jewish emigration in particular has exceeded a million people and most immigrated to the United States and Israel (1). More than 460,000 people were estimated to have immigrated from the FSU to the United States between 1991 and 2000. In 1999 alone, combined immigration from Russia and the Ukraine ranked 5th among countries from which legal immigrants were admitted to the United States, and throughout the 1990s they constituted the largest group accepted with refugee status (2). Israel's population of immigrants from the FSU increased steadily and even more rapidly after 1989 than that in the United States. Approximately 920,000 individuals emigrated from the FSU to Israel between 1989 and 2001, and presently comprise close to 20% of the total population of Israel. Most but not all of them are of Jewish origin (3).

Postimmigration adjustment is affected by individual demographic and health characteristics (e.g., age, gender, length of residence in the new country, marital status, chronic illness), as well as contextual influences that reflect national resources for new immigrants. Immigration is a stressful life event, and depression is the most common and potentially one of the most debilitating problems for immigrants (4, 5). The problem is especially prevalent among women of middle and older age, and has been demonstrated repeatedly in previous research (6, 7). Stress and mental health of immigrants has wide implications for the host countries. People who are depressed require more health care; in addition, they may find it more

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difficult to work and may be more likely to apply for social welfare services (8).

There is reason to believe that the contextual factors in the host country (e.g., legal status, health and social benefits provided) have a considerable effect on immigrants' health and well being (9, 10). Nevertheless, very few studies examine the effect of such contextual factors related to conditions in the host country. In particular, very few studies have been reported regarding immigrants who reside in different countries but who came from the same sending country (11). Since few studies have been conducted comparing the impact of host country factors, we know little about contextual factors that facilitate adaptation among this unique group of immigrants. Therefore, this exploratory study is intended to provide the basis for future examinations of environmental, community, and health service factors that may inform health policy as it affects immigrants.

The purpose of this study was to compare depressed mood for midlife women from the FSU who reside in the United States and Israel, controlling for demographic and health characteristics. The conceptual framework for this study includes concepts proposed by Berry's (12) framework for acculturation research. Berry's model proposes pre- and postmigration variables, which serve as moderators or mediators in the process of psychological adaptation, and emphasizes both group and individual acculturation phenomena. The Postmigration Health and Behavior Change Framework (4) is an application of these concepts and was designed as a guide for targeting culturally specific health promotion interventions. It proposes that premigration, predispositional, and postimmigration contextual factors affect the relationships among acculturation, acculturative stress, and health risk indicators, and that the relationship between acculturative stress and health risk is mediated by potentially modifiable behaviors. Concepts from the Framework included in this study are past health status, postimmigration demographic variables, and health risk indicators (postimmigration depression).

Contextual Factors in the United States and Israel

Our conceptual model suggests that adjustment of new immigrants is influenced by health and social services available in the host country. We will therefore briefly review the absorption policy and services available to immigrants in the United States and Israel.

Legal, social, and health benefits comprise contextual factors that influence immigrant adaptation. Policies relating to immigrant benefits and health care delivery differ a great deal between the United States and Israel. Services for which immigrants are eligible in the two countries are summarized in Table I. For example, in the United States there are

Table I. Comparison of Government Assistance to Immigrants: United States and Israel

	United States	Israel
Government responsibility	No specific agency to oversee or facilitate immigrant absorption.	Ministry of Absorption.
Naturalization	Immigrants eligible for citizenship after at least 5 years of residence in the United States.	New legal immigrants become Israeli citizens soon after arrival.
Income	Prior to 1997, legal immigrants and refugees demonstrating need eligible for SSI and other special benefits available also to U.S. citizens. Since 1997, most financial assistance programs limited to U.S. citizens, refugees, and special population groups.	Special financial assistance is available for immigrants ("absorption basket"). All immigrants receive an income benefit during their first 6 months in Israel with possible 6-month extension. If in need, they receive same income benefits provided to all unemployed residents.
Health care	Medicaid and other benefits vary across states and depend on age and date of arrival.	Same as Israeli citizens.
Housing	Eligible for some public housing programs.	Eligible for rent subsidy, discount on mortgage payments, or public housing.
Employment	No special public assistance to immigrants	Assistance for vocational training courses, jobs, or small business loan.
Language assistance	Some assistance through local educational institutions.	Free intensive language course for 6 months, with income maintenance benefit and transportation allowance.
Taxes	Responsibility same as U.S. citizens.	Discounts on custom tax for personal items

no federal or state mechanisms designed specifically to facilitate absorption of immigrants. The Personal Responsibility and Work Opportunities Act of 1996 (Public Law 104-193) shifted responsibility for certain programs from the Federal government to the States. This law dramatically reduced benefits for the majority of immigrants, with one notable exception being those designated as having refugee status (13, 14). Although some benefits have been reinstated for some groups of individuals in the years since the passage of this welfare reform law, the noncitizen immigrant public assistance package is generally much less comprehensive than that of citizens (9). Health and social services for immigrants are, therefore, provided in a health care system that is highly decentralized, loosely organized, and extremely complex for them to navigate independently (15).

Immigration to Israel is a decisive factor in the country's population growth (10). Israel is unique in having an open policy to immigration rooted in the Law of Return, which states that every Jew has the right to immigrate to and settle in Israel. This formal policy accepts virtually all Jewish immigrants, regardless of pragmatic considerations such as economic status, job availability, or physical health. The Ministry of Absorption was established to provide extensive government assistance, and is responsible for both the initial integration of individual immigrants, and for acculturation into all aspects of life in Israel of entire immigrant groups (3).

Benefits provided to immigrants include direct financial assistance to individuals and families, as well as other assistance with housing costs, employment training, and language instruction. Since January 1995, when the National Health Insurance Law went into effect, health care has been a universal entitlement for all residents of Israel (10). The law instituted a progressive health tax, and there is minimal or no patient cost sharing for most services. Consequently, there are few financial barriers to health care, which is available to all residents through a health plan of their choice.

REVIEW OF LITERATURE

New immigrants face significant postimmigration challenges. Learning a new language and mastering seemingly routine daily activities produce acculturative stress. Depression is a commonly identified problem for Asian, Middle Eastern, and Latina women following immigration to the United States (16, 17), and has been documented repeatedly for Ethiopian and Russian immigrants in Israel (18). Studies of immigrants from the FSU in which gender differences are assessed tend to find more psychological distress in women than in men (6, 7, 19).

Age has been shown consistently to be a correlate of psychological symptoms in immigrants, and people who immigrate during or after their midlife years tend to have greater distress (4, 7). Midlife and older immigrants may be at highest risk, since younger immigrants tend to acculturate more easily, are able to find jobs, and are less depressed (20). Many midlife immigrants have great difficulty finding jobs equivalent to those they held in the FSU, experience unemployment or underemployment, and consequently suffer losses in both their occupational status and their personal identity. Marital and intergenerational relations may also be strained (21, 22).

In addition, other demographic characteristics appear to increase vulnerability to depression in immigrants. Findings for the relationship between marital status and depression in immigrants are equivocal, and suggest that there are complex interactions among gender roles, social support, and psychological distress. Marital status did not predict depression in several studies (23, 24), but others found nonmarried immigrants had higher demoralization (11) and suicidal ideation (5). Flaherty *et al.* (25) found that although married women from the FSU were more demoralized than single women, single men were less demoralized than married men. Interactions between gender and marital status are demonstrated by Baider *et al.* (26), who found that unmarried women had the highest scores for depression compared to married women and men. In one of a very few studies that compared U.S. and Israeli immigrants, Flaherty *et al.* (11) found that those who lived in the United States had higher demoralization scores than those who lived in Israel.

Age, gender, and length of residence are the most frequently studied demographic characteristics found to predict mental health in immigrants. Other factors related to psychological distress include living situation, education, and employment status (7, 26). Although length of residence in the new country has been used as a proxy measure for acculturation in many studies of immigrants, it has not demonstrated a consistent relationship with adjustment for this population (7, 27). Having a chronic disease predicted a perceived need for mental health services among Israelis, but fewer immigrants than native-born Israelis sought help for mental health problems

when needed (28). When scores for psychological distress are compared to norms, immigrants from the FSU have been shown to have higher levels as well (4, 8).

In addition to demographic characteristics, physical health status is a very potent predictor of depression in older immigrants (29). Immigrants from the FSU bring with them high levels of psychological distress and somatic complaints due to health care inadequacies, social disruption, and political instability in their native country, and these premigration factors continue to affect their physical and mental health (30). They have high levels of cardiovascular risk and hypertension, as well as other chronic illnesses that are related to depression (31, 32). Their health status and attitudes toward seeking care influence utilization of health services (33–35).

This study will address the following questions with regards to immigrants from the FSU: 1) What demographic and health status factors are related to depression; 2) How do these factors differ between immigrants residing in the United States and Israel; and 3) Is host country an independent contributor to depression when demographic and health status factors are held constant?

METHODS

Sample and Setting

This is a descriptive secondary analysis of data collected independently in the United States and Israel in 1997–1998. It includes 72 community dwelling women, 36 from each country, who comprise subsets of the larger studies and who were matched on age and length of residence. Matching was elected to equalize the number of women from the two samples, and because the samples differed most substantially in age and length of time since immigration. Matching on age was particularly important to control for consistently reported relationships between age and psychological distress in immigrants. Both studies included women from any of the former Soviet Republics, but the majority in both samples was from Russia, the Ukraine, and Belarus.

U.S. Sample

Data for the U.S. sample are from a cross-sectional, descriptive study that examined the impact of immigration on health and psychological well being of 200 women from the FSU who resided in a large Midwestern metropolitan area in 1997–1998 (4). Eligibility criteria included age 45–65 years, and residence in the United States for up to 6 years. Women were recruited through community advertisements, English classes, and network sampling. Questionnaires were self-administered in Russian under the supervision of bilingual research assistants in participants' homes or another convenient meeting place. The Institutional Review Board of the principal investigator's university approved this study.

Israeli Sample

The data for the Israeli sample were collected as part of a national telephone survey that included women age 22 and over who were permanent residents of Israel (8). The participants for the survey were randomly selected from the Israeli national computerized telephone listing, in which over 95% of households are listed. Within households, respondents were chosen using random number tables. The surveys were conducted in September and October 1998 by trained interviewers who used a structured questionnaire developed by the Commonwealth Fund (36) and adapted to the Israeli health system. The entire Israeli national survey included 849 women. Of them, 130 women were born in the FSU and interviewed in the Russian language. They ranged in age from 22 to 83, and had lived in Israel for up to 28 years.

Israeli women who were born in the FSU and interviewed in the Russian language were matched by age (within 5 years) and number of years since immigration (within 3 years) to women in the U.S. study group. This method yielded 36 matched pairs. The ages of the women in the matched pairs ranged from 42 to 70, with a mean age of 54.62 (SD = 7.43). The length of time in their respective countries ranged from less than 1 year to 7 years, and the mean was 3.94 years (SD = 1.85). The mean difference in age for the pairs was 0.31 (SD = 1.72), and the mean difference in number of years since immigration was 1.28 (SD = 1.39). Using paired comparison *t*-tests, the pairs of women did not differ significantly on age, but the Israeli women were more likely to have lived in their new country longer than the women residing in the United States ($t = -5.53$; df = 35; $p < 0.001$). Time in their new country ranged from 1–5 years for women in the United States (mean = 3.31; SD = 1.2),

compared to a range of 1–7 years for women in Israel (mean = 4.58 years; SD = 2.1).

Measures

Although different recruitment and data collection methods were used in the two studies, similar information was obtained regarding marital status, household size, pre-immigration education and employment status, self-report of overall health status, and presence of four chronic diseases (diabetes mellitus, cancer, arthritis, and hypertension).

The *Center for Epidemiological Studies - Depression Scale* (CES-D), a screening questionnaire for a general population, was used in both primary studies to measure current level of depressed mood (37). Both studies used backtranslation methods to translate original questionnaire items into Russian. Participants respond on a 4-point scale (*0 = rarely or none of the time* to *3 = most or all the time*) to how they felt or behaved in the past few weeks. The full scale includes 20 items, which are added for a total score. Validity in the U.S. population is supported by the significantly higher percentage of psychiatric patients than the general population (21%) scoring at or above an arbitrary cutoff score of 16. Internal consistency of the CES-D was reported to be .85 for a general population sample and .90 for a psychiatric inpatient sample (37). Cronbach's alpha coefficient for the United States primary study ($n = 200$) using the 20-item scale was 0.90.

The Commonwealth Fund questionnaire used in the Israeli study modified the CES-D Scale to include only six of the 20 items ("I felt depressed;" "my sleep was restless;" "I enjoyed life [reverse coded];" "I had crying spells;" "I felt sad;" and "I felt that people disliked me"). The possible range of summed scores for these six items is 0–18 (36). To compare depressed mood between the two samples, scores for the U.S. sample were also computed for the same six CES-D items. The Cronbach's alpha was 0.88 for the 36 U.S. women, and 0.68 for the Israeli sample. For the entire sample in the present analysis ($N = 72$), the alpha was 0.80. The total scores for the six items were used in correlations and multiple regression analyses in this study. In addition, the Commonwealth Fund study collapsed the scores for the six CES-D items into three categories representing level of depressed mood: low (0–2), moderate (3–5) and high (scores of 6 and over). This categorization method was also used in the present analysis for descriptive purposes in each sample individually and for the merged group.

Statistical Analysis

Data were analyzed using SPSS software Version 11.5. Univariate and bivariate analyses were performed using paired t-tests, correlations, Chi-square and ANOVA. Demographic variables that were found to vary significantly between the two samples, and those that were significantly related to depression scores were included in multivariate analyses with health variables. Multivariate analyses were performed using stepwise linear regression.

RESULTS

Demographic and Health Status Characteristics

For the combined group, close to two-thirds of the sample were married (46; 63.9%) (Table II). In general, the women were highly educated, with approximately one-fourth (16; 22.2%) having some college or post high school training, and more than half (45; 62.5%) having a bachelor's degree or higher. Approximately one-third of the women (26; 36.1%) were employed full or part-time. Household size ranged from 1-6 (mean = 2.43; SD = 1.23), and nearly half lived in households of two people (34; 47.2%). In terms of health status, slightly more than one-quarter of the women (19; 26.4%) reported their perceived health as poor, one-half (36; 50%) reported their health as fair, and the others (15; 21.5%) reported their health as being good or excellent. Of the four diseases surveyed, 4 women (5.5%) had diabetes, 4 (5.5%) had cancer, 24 (33.3%) had arthritis, and 36 (50.0%) had hypertension.

The scores for the modified CES-D (six items) ranged from 0–17, with a mean of 8.35 (SD = 4.46). Only six (8.3%) of the women had low depression indices (0–2), with 14 (19.4%) reporting moderate index scores (3–5) based on the Commonwealth Fund scoring recommendations. Close to three-quarters of the women (52; 72.2%) had high depression indices (6 and over).

The two samples were compared for demographic and health status information using paired comparison t-tests, ANOVA, and Chi-square statistics. The matched pairs differed significantly on

Table II. Chi Square Comparisons of Demographic and Health Characteristics for Former Soviet Women Living in the United States and Israel

	United States ($N = 36$)		Israel ($N = 36$)		Total ($N = 72$)	
	N	%	*N*	%	*N*	%
Marital status ($\chi^2 = 11.35$; df 3; $p = 0.01$).						
Married/partnered	22	61.1	24	66.7	46	63.9
Single	0	0	3	8.3	3	4.1
Widowed	14	38.9	5	13.9	19	26.4
Divorced	0	0	4	11.1	4	5.6
Education ($\chi^2 = 11.26$; df 3; $p = 0.01$).						
Less than high school	3	8.3	1	2.8	4	5.6
High school	1	2.8	6	16.7	7	9.7
Some college/training	4	11.1	12	33.3	16	22.2
Bachelor's degree or more	28	77.8	17	47.2	45	62.5
Employment status ($\chi^2 = 6.02$; df 1; $p = 0.014$)						
Employed full- or part-time	8	22.2	18	50.0	26	36.1
Not employed	28	77.8	18	75.0	46	63.9
Health status ($\chi^2 = 4.45$; df 3; $p =$ ns)						
Poor	12	33.4	7	19.4	19	26.4
Fair	16	44.4	20	55.6	36	50.0
Good or excellent	7	19.4	8	22.2	15	20.8
Missing data	1	2.8	1	2.8	2	2.8
Depression index ($\chi^2 = 1.26$; df 2; $p =$ ns)						
Low (0–2)	2	5.6	4	11.1	6	8.3
Moderate (3–5)	6	16.7	8	22.2	14	19.4
High (6+)	28	77.8	24	66.7	52	72.2

household size, with the Israeli women living in larger households than the U.S. women ($t = 5.64$; df = 35; $p < 0.001$). Although the matched pairs did not differ significantly on CES-D scores, ANOVA showed that the two country samples did differ on CES-D scores when taken as a whole ($F = 4.09$; df = 1, 70; $p < 0.05$). Using chi square statistics, the two country samples differed significantly on marital status: the U.S. sample had a larger proportion of women who were married or widowed, while the Israeli sample had a comparatively larger proportion of single and divorced women ($\chi^2 = 11.35$; df = 3; $p = 0.01$) (Table II). The U.S. women were more likely to have higher educational achievement ($\chi^2 = 11.26$; df = 3; $p = 0.01$), but were less likely to be employed ($\chi^2 = 6.02$; df = 1; $p = 0.014$). No significant differences were found between the two samples using chi square for self-reported health status or depression index, and the groups did not differ by presence of diabetes mellitus, cancer, arthritis, or hypertension.

Age had a low but significant correlation with number of years since immigration ($r = 0.253$; $p = 0.032$), and negative correlation with household size ($r = -0.248$; $p = 0.035$). Depression scores were not correlated significantly with age, length of residence, or household size. A series of ANOVAs were conducted to examine differences in CES-D scores by demographic and health status variables. CES-D scores did not vary significantly by marital status, education, employment status, self-reported health status, or presence of any of the specific diseases (diabetes mellitus, cancer, arthritis, or hypertension).

A series of linear regression analyses were conducted using country (coded as United States = 1; Israel = 2), marital status, education, employment status, and health-related items, with CES-D score as the dependent variable. When included in an equation with marital, employment and educational status, only country, health status, and presence of arthritis were significant independent predictors of depression, and the model explained 16% of the variance in depression. Removing marital status, employment and educational status from the equation produced the best model, which included only the variables of country, health status, and arthritis in the equation and explained 18.8% of the variance in depression scores (Table III). Women living in the United States, those having lower perceived health status, and those having arthritis had higher depression scores.

Table III. Significant Contributors to Depression Using Stepwise Linear Regression Analysis for Combined Samples (United States and Israel) With Country, Health Status, Presence of Arthritis, and CES-D

Variable	Regression coefficients	*t*	*p*
Constant	14.424	7.829	0.000
Country	−2.366	−2.464	0.016
Health status	−1.674	−2.753	0.008
Arthritis	2.243	2.234	0.029

Note. $R^2 = 18.8\%, p = 0.001$.

DISCUSSION

In this descriptive analysis of U.S. and Israeli immigrants from the FSU, women were matched on age and on time since immigration to create a more homogeneous sample in which to study factors relating to postimmigration psychological distress. These variables were chosen for matching since previous studies identified them most consistently as predictors of depression in immigrant women. Matching on additional variables would have limited the samples further, and data regarding their influence on depression are equivocal. Selecting only matching pairs from the two larger groups increased the power to identify differences, without the confounding effect of age. However, the relatively small number of pairs minimized variation, which might also have reduced the ability to identify differences between the two countries on some variables.

Demographic and Health Status Factors Related to Depression

Self-reported health status and the presence of arthritis were independent contributors to depression in the multiple regression analysis, when country was held constant. The relationship between the presence of chronic illness and depression is well known, and it is understandable that health status variables predicted depression in this sample. The appearance of arthritis, a chronic disease frequently encountered in primary care settings, as a predictor of depressed mood in this sample emphasizes the need for screening for depression in older women by primary care providers (38). This is particularly important for immigrants from the FSU, who are relatively unlikely to seek psychiatric services (27).

However, CES-D scores did not vary significantly by these health-related variables. This may be because several of the items on which the samples were compared did not have enough variation to demonstrate statistically significant differences. For example, three-quarters of the women rated their health as fair or poor. In addition, the cumulative effect of having more than one chronic disease is greater than the impact of any one disease. This is supported by the significant correlation of CES-D score with number of diseases.

Contrary to expectation, however, was the absence of a significant correlation between age and depression scores. This contradicts most studies of immigrants from the FSU (18, 39), as well as studies of other immigrant women (16, 17). The restriction of age to 40–70 years decreased variation in age compared to studies that included participants across the lifespan. Although there was an age range of close to 30 years, it may be that women in this age group react similarly to the challenges of immigration compared to young adults, with little variation across the midlife years.

Similarly, in this study depression scores did not vary by most of the demographic characteristics reported in previous studies, including marital status, education, employment status, and time since immigration. One explanation might be differences in instruments used between this study and former studies to measure psychological well being. It is more likely, however, that other factors in each country balanced out the relative positive or negative impact of each of these characteristics. The relationships among these demographic characteristics and depression in other studies might also be confounded by age. The only U.S. study that did not find level of distress related to any sociodemographic variables included patients in a primary care setting who, like this one, demonstrated relatively little variation in age, employment, marital status, education, or years since immigration (23).

The absence of a negative correlation between years since immigration and depression scores corroborates previous studies of this population that indicate that the latter is not a good proxy for acculturation, especially if one uses depression as an indicator or outcome measure (4). Although the range for years since immigration is limited in the present analysis, the findings suggest that depressed mood remains consistent for many women, at least through the first 8 years. Additional studies are needed to validate acculturation instruments, identify factors that influence the acculturation process, and determine appropriate outcome measures for

this population. Longitudinal studies of depression, rare in both countries, are recommended.

Comparison of Demographic and Health Related Variables in the U.S. and Israeli Samples

The demographic differences between the two samples are consistent with selection bias in the women who immigrate to the two countries. Because many women from the FSU were eligible to enter the United States under family reunification criteria, the higher proportion of married women in the U.S. sample was not surprising. Also, there is a common perception that the United States provides more economic opportunities and is a more secure destination than most other countries. People with more education and professional status might expect to find better employment opportunities there. The larger household size in the Israeli sample attests to the greater likelihood that adults continue to live with their parents and other members of their extended family, and that independent housing may be more difficult to find in Israel. Furthermore, in spite of the comparatively better support for health care services, the relative economic status of the immigrants to Israel may be lower than that of immigrants to the United States, and they therefore may not be able to afford independent households.

Nevertheless, the two samples had remarkably similar health status characteristics. The high proportion of women who rated their health as fair or poor corroborates previous findings regarding both subjective and objective assessment of health status in this population (29, 30, 40).

The Independent Effect of Host Country on Depression

The emergence of host country as an independent predictor of depression in midlife immigrant women from the FSU when selected demographic and health characteristics are held constant supports the importance of contextual factors in our conceptual framework that may affect mental health of immigrants. It should not be surprising that this is a significant predictor of depression in immigrant women, considering the great political and cultural differences of the two nations. Nevertheless, the finding is important since only a few previous studies have examined the effect of host country systematically.

Immigrants from the FSU residing in the United States had higher depression scores than their counterparts living in Israel, corroborating the cross-national study of demoralization in this population conducted by Flaherty *et al.* (11) prior to the mass emigration from the FSU in the 1990s. The persistence of higher scores for psychological distress in the U.S. samples in spite of the nearly 10-year difference in data collection (reflecting different cohorts of immigrants who left a different set of circumstances in the U.S.S.R.) suggests that postmigration experiences are indeed influenced by national differences. This finding is of great interest and has implications for health and immigration absorption policies in both countries. It is not clear from this exploratory study which contextual factors contribute to the higher levels of depressed mood among immigrants to the United States compared to Israel. Nevertheless, several factors on which the two countries differ may be of importance in the absorption process. For example, significant language and attitudinal barriers exist in both countries. Also, one could expect that political turmoil in Israel adds to the stress of immigration there. The United States, simply because of its size, should be better able to absorb new groups of immigrants. However, the large proportion of immigrants from the FSU in relation to the veteran Israeli population (somewhat analogous to the proportion of Latino immigrants in the United States) might act as a buffer for some aspects of the acculturation process. Israel, whose settlers in the late nineteenth and early twentieth centuries were of Russian origin, may have an interpersonal milieu more similar to Russian culture than the United States. The latter may be more difficult for immigrants to understand and therefore more stressful.

Independent housing may be more difficult to find in Israel, but living in larger households might provide greater support or satisfaction. Older women in the United States may be more likely to feel isolated from their families and experience living independently as abandonment by their children. In addition, unrealistic dreams of a successful life in the United States may lead to greater disappointment when expectations are not met. Finally, the gratification felt by those who immigrated to Israel for ideological reasons may contribute to a greater willingness to endure day to day difficulties that helps them cope more effectively with the trauma of immigration.

The findings of this study therefore highlight the need to examine the broader context of immigrant

absorption. The United States and Israel have different legal, health, and social service systems, which would appear to affect an individual's experience of immigration and his or her psychological well being. Jewish immigrants to Israel, including their Jewish and non-Jewish nuclear families and descendents, are conferred citizenship on arrival. They receive financial support and other benefits to assist them during the initial period following immigration, and are eligible for universal health and mental health care. This instrumental support may well help ease the stress related to immigration and facilitate adaptation to the new circumstances.

Furthermore, there are differences between the two countries in the organization and accessibility of health services. In Israel, the majority of immigrants from the FSU are treated by primary care physicians who speak Russian and may be more sensitive to diagnosing depression in this population. Unrestricted access to health and mental health services may also facilitate appropriate care or contribute to the perception that care is available if needed. In spite of its long history of accepting immigrants from around the world, only those who enter the United States with refugee status receive selected health benefits on arrival.

This study had several limitations, including the difference in recruitment methods for the two samples. Although the U.S. sample is not representative, we have no reason to believe there is bias in the measurement of depression (our dependent variable). If there is bias, we believe that our sample captured the less depressed (i.e. the rates identified are a minimum estimate), because the sampling method reached the more active women in the community. Matching women from the two samples on age and length of residence helped create a more homogeneous sample. Future studies should use similar recruitment strategies in both countries. An additional limitation, common to all secondary analyses, is the inability to choose variables for study in advance. Nevertheless, the two samples had included the primary variables of interest, i.e., depression, health status, and demographic characteristics, and were determined to have adequate comparability. Future studies will identify specific variables that reflect social context, based on known differences in legal, health, and social services. For example, examining perceived accessibility and utilization of health and social services available to immigrants in these countries might be an important next step for future research, with the aim of confirming the specific elements in immigration policies and services that account for higher feelings of well being of immigrants.

In summary, we do not know which host country factors, such as attitude toward immigrants, financial support mechanisms, community-based language and acculturation services, health care accessibility and utilization, density of coethnics, and informal support networks, interact with personal characteristics and contribute the most to immigrant adjustment. It is reasonable to assume that these and other factors related to governmental policy affect the success of immigration and acculturation, and help determine whether or not this transitional experience will represent a crisis in the life of the immigrant.

The findings highlight the importance of identifying the contextual factors, represented by country of residence in this study, that influence immigrant mental health and adaptation. These factors are difficult to measure and their interrelationships have not been examined systematically, or else have been studied independently by economists, demographers, psychologists, health professionals, and researchers in other disciplines. The findings of this study also highlight the need for interdisciplinary research directed toward making comparisons of cross-national factors. Although it is premature to make policy recommendations, future cross-national interdisciplinary research should be directed toward developing and testing conceptual models that will guide successful interventions for new immigrants. Our study provides a unique opportunity to understand similarities and differences in health and mental health between immigrants from the FSU who reside in the United States and Israel. Such a comparison can have implications for both the health of new immigrants and the social policy aimed at facilitating their absorption and adjustment.

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REFERENCES

1. Union of Councils for Soviet Jews: Jewish emigration from the former Soviet Union: 1954–1997; 2002. Retrieved September 5, 2003, from http://www.us-israel.org/jsource/Judaism/fsuemig.html
2. U.S. Immigration and Naturalization, Service: Statistical Yearbook of the Immigration and Naturalization Service, 1999. Retrieved September 5, 2003, from http://www.immigration.gov/graphics/shared/aboutus/statistics/imm99list.htm
3. Ministry of Immigrant Absorption (Israel): Immigration from Former Soviet Union by age; 2002. Retrieved September 5, 2003, from http://www.moia.gov.il/english/netunim/stats1.htm
4. Miller AM, Chandler PJ: Acculturation, resilience and depression in midlife women from the FSU. Nurs Res 2002; 51(1):26–32
5. Ponizovsky A, Ritsner M: Suicide ideation among recent immigrants to Israel from the FSU: An epidemiological survey of prevalence and risk factors. Suicide Life Threat Behav 1999; 29(4):376–392
6. Ritsner M, Ponizovsky A, Nechamkin Y, Modai I: Gender differences in psychosocial risk factors for psychological distress among immigrants. Compr Psychiatry 2001; 42(2):151–160
7. Zilber N, Lerner Y: Psychological distress among recent immigrants for FSU to Israel, I. Correlates of level of distress. Psychol Med 1996; 26:493–501
8. Gross R, Brammli-Greenberg S, Remennick L: Self-rated health status and health care utilization among immigrant and non-immigrant Israeli Jewish women. Women Health 2001; 31(3):53–69
9. Ku L, Matani S: Left out: Immigrants' access to health care and insurance. Health Affairs 2001; 20(1):247–256
10. Gross R, Rosen B, Chinitz D: Evaluating the Israeli health care reform: Strategy, challenges and lessons. Health Policy 1998; 45:99–117.
11. Flaherty JA, Kohn R, Levav I, Birz S: Demoralization in Soviet-Jewish immigrants to the United States and Israel. Compr Psychiatry 1988; 29:588–597
12. Berry JW: Immigration, acculturation, and adaptation. Appl Psychol Int Rev 1997; 46:5–34
13. Fremsted S: Immigrants and Welfare Reauthorization. Washington, DC: Center on Budget and Policy Priorities; 2002. Retrieved September 5, 2003, from http://www.cbpp.org
14. Tumlin KC, Zimmermann W, Ost J: State Snapshots of Public Benefits for Immigrants: A Supplemental Report to 'Patchwork Policies'. Washington DC: Urban Institute; 1999. Retrieved September 5, 2003, from http://newfederalism.urban.org/html/occa24_sup.html
15. Institute of Medicine (IOM), Committee on Quality of Health, Care in America: Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academy Press; 2001. Retrieved September 5, 2003, from http://www.iom.edu
16. Shin KR: Psychosocial predictors of depressive symptoms in Korean-American women in New York City. Women Health 1994; 21:73–82
17. Salgado de Snyder V, Cervantes R, Padilla A: Gender and ethnic differences in psychosocial stress and generalized distress among Hispanics. Sex Roles 1990; 22:441–453
18. Ponizovsky A, Ginath Y, Durst R, Wondimeneh B, Safro S, Minuchin-Itzigson S, Ritsner M: Psychological distress among Ethiopian and Russian Jewish immigrants to Israel: A cross-cultural study. Int J Soc Psychiatry 1998; 44(1):35–45
19. Vinokurov AD, Birman D, Trickett E: Psychological and acculturation correlates of work status among Soviet Jewish refugees in the United States. Int Migration Rev 2000; 34:538–559
20. Birman D, Tyler FB: Acculturation and alienation of Soviet Jewish refugees in the United States. Genetic Soc Gen Psychol Monogr 1994; 120:103–115
21. Aroian KJ, Spitzer A, Bell M: Family stress and support among former Soviet immigrants. Western J Nurs Res 1996; 18(6):655–674
22. Ben-David A, Lavee Y: Migration and marital distress: The case of Soviet immigrants. J Divorce Remarr 1994; 21:133–146
23. Aroian KJ, Norris AE, Patsdaughter CA, Tran TV: Predicting psychological distress among Former Soviet immigrants. Int J Soc Psychiatry 1998; 44:284–294
24. Gutkovich Z, Rosental R, Galynker I, Muran C, Batchelder S, Itskhok E: Depression and demoralization among Russian-Jewish immigrants in primary care. Psychosomatics 1999; 40:117–125
25. Flaherty JA, Kohn A, Golbin M, Gaviria S, Birz S: Demoralization and social support in Soviet-Jewish immigrants to the United States. Compr Psychiatry 1986; 27(2):149–158
26. Baider L, Ever-Hadani P, DeNour A: Crossing new bridges: The process of adaptation and psychological distress of Russian immigrants in Israel. Psychiatry 1996; 59:175–183
27. Ritsner M, Ponizovsky A: Psychological symptoms among an immigrant population: A prevalence study. Compr Psychiatry 1998; 39(1):21–27
28. Rabinowitz J, Gross R, Feldman D: Correlates of a perceived need for mental health assistance and differences between those who do and do not seek help. Soc Psychiatry Psychiatr Epidemiol 1999; 34:141–146
29. Carmel S, Lazar A: Health and well-being among elderly persons in Israel: The role of social class and immigration status. Ethn Health 1998; 3:31–43
30. Cockerham W: Health lifestyles in Russia. Soc Sci Med 2000; 51:1313–1324
31. Mehler PJ, Scott I, Pines N, Gifford S, Biggerstaff W: Russian immigrant cardiovascular risk assessment. J Health Care Poor Underserved 2001; 12(2):224–235
32. Miller AM, Wilbur J, Chandler P, Sorokin O: Cardiovascular disease risk factors and menopausal status in midlife women from the former Soviet Union. Women Health 2003; 38(3):19–36
33. Ivanov LL, Buck K: Health care utilization patterns of Russian-speaking immigrant women across age groups. J Immigrant Health 2002; 4:17–27
34. Kravitz R, Helms J, Azari R, Antonius D, Melnikow J: Comparing the use of physician time and health care resources among patients speaking English, Spanish, and Russian. Med Care 2000; 38:728–738
35. Remennick L, Ottenstein-Eisen N: Reaction of new Soviet immigrants to primary health care services in Israel. Int J Health Serv 1998; 28:555–574
36. Collins K, Schoen C Joseph S, Duchonn L, Simantov E, Yellowitz M: Health Concerns Across a Woman's Lifespan: The Commonwealth Fund 1998 Survey of Women's Health. New York: The Commonwealth Fund; 1999
37. Radloff LS: The CES-D Scale: A self-report depression scale for research in the general population. Appl Psychol Meas 1977; 1:385–401
38. deGruy F: Mental healthcare in the primary care setting: A paradigm problem. Fam Syst Health 1997; 15(1):3–26
39. Zilber N, Lerner Y, Eidelman R, Kertes J: Depression and anxiety disorders among Jews from the FSU five years after their immigration to Israel. Int J Geriatr Psychiatry 2001; 16:993–999
40. Rennert G, Luz N Tamir A, Peterburg Y: Chronic disease prevalence in immigrants to Israel from the FSU. J Immigrant Health 2002; 4(1):29–33