

The Mental Health Status of Expatriate versus U.S. Domestic Workers: A Comparative Study

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ABSTRACT

Although a range of authors have suggested that the rates of mental health problems among expatriates are higher than their counterparts living at home, there has been no empirical examination of whether expatriates living overseas do, in fact, experience higher levels of risk for mental health problems. This study deployed a cross-sectional, two-group survey research design to compare the mental health status of an expatriate population to a domestic U.S. non-expatriate population. The two groups were separate and distinct U.S. based employers. A validated behavioral health screening tool, known as the GAIN-Short Screener, was used to rule out who has a behavioral health disorder and who does not in both the expatriate and non-expatriate groups. The study concludes that employees living and working as expatriates experience a higher range of risk for mental health and substance use disorders that exceeds their U.S. counterparts.

INTRODUCTION

Over the course of the last 25 years, published reports have suggested that living overseas as an expatriate conveys risk for stress and psychological or psychosocial problems that exceed those in populations for individuals living in their home country.¹ The vast majority of these accounts are anecdotal, case reports, or autobiographical histories of living overseas. Some have suggested that expatriates are at high risk for adjustment and affective disorders², depression and anxiety³, marital and substance abuse.^{3,4} While there have been a range of authors who have suggested that the rates of expatriate mental health problems are higher than their counterparts living at home, there has been virtually no empirical examination of whether expatriates living overseas do, in fact, experience higher levels of stress or risk for mental health problems. The current study addresses this issue.

In one of the few studies documenting mental health risk in expatriates living overseas, Valk conducted clinical evaluations for the U.S. military and government personnel stationed in Egypt and found rates of

depressive disorder and substance abuse at 17.5% and 12.7%, respectively.⁴ While these findings are suggestive, there was no control group against which they could be compared to assess relative risk associated with living overseas. Additionally, the data were gathered without the use of a standardized instrument, and were compiled by aggregating diagnoses arrived at via psychiatric interviews by a single clinician.

Black & Gregersen suggest that adjustment and mental health problems are more pronounced when there is a significant cultural difference between one's home country and the host country.⁵ The adjustment to a new country is also more difficult when the expatriate worker and his/her family fail to receive training and support before, during, and after an assignment.⁶ Other factors that may influence adjustment overseas include language differences, and general expectations (those of the expatriate and his/her family, the employer's expectations, and the expectations of host country nationals). Travel for work can exceed 100,000 miles per year, and for many, distance from extended family and

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social support makes for a difficult and isolated existence. In short, working abroad can be, and often is, a very difficult task. This inherent difficulty has led to speculation that the effects of culture shock, separation from extended family, adaptation problems, heightened stress, and other factors increase the risk of developing a mental health disorder if one is an expatriate.³

Despite the lack of relevant empirical evaluation of the rates of mental health risk for expatriates, there are a number of studies that have demonstrated that American expatriates have high rates of assignment failure. Sappinen estimates that between 16% to 40% of assigned individuals and families return home prior to completion of an assignment.⁷ As early as the late 1980s the literature on expatriates identified “failure of the spouse to acclimate to the host country’s culture” as the prominent reason for early assignment return and other family-related issues rank highly with respect to being known causes of assignment failure.^{6,8,9} While these problems are not clearly delineated in these studies, we suspect that mental health problems play a prominent role in early return to the home country.

According to several expatriates now writing about their experiences offshore, alcohol abuse is prevalent among this population.⁴ Individuals stationed overseas frequently cope with extraordinarily high work demands and expectations, which leads to high stress at work. This, in turn, might reasonably be expected to raise the risk of substance abuse. Minter has suggested that substance abuse while on assignment is a major contributing factor to assignment failure, but these findings were not empirically evaluated.¹⁰

We hypothesize that the base rate of mental health diagnoses among expatriates is greater than that of a non-expatriate working population. In particular, we expect that problems such as depression, anxiety, and substance abuse will be higher for expatriates than for employees based in their home country.

RESEARCH METHODS

SAMPLE

We employed a cross-sectional, two-group survey research design to compare the mental health status of an expatriate employee

population to a domestic U.S. non-expatriate employee population. The two groups were drawn from the employee populations of separate and distinct multinational employers headquartered in the U.S.

The expatriate group was made up of 950 expatriates, all residing in their host location for a minimum of six months. Typical duration of international assignments for the corporation ranged between one and three years. These expatriate’s host locations were spread throughout the world, with the highest concentration of assignment locations in Latin America, Asia, Europe, the United Kingdom, and the United States. All 950 were surveyed over a ten week period in the Spring of 2008. The U.S. based comparison group consisted of a mix of office-based management and production-based manufacturing workers spread throughout the United States, but were primarily located in the Midwest and the Southern regions, mainly in suburban and rural areas. The employees in the U.S. based group completed the survey in the Fall of 2007 and Winter of 2008.

Significant limitations were placed on the research team regarding the types of information that we were allowed to solicit from employees. We were unable to collect data from participants regarding age, gender, educational level, job roles, or specific geographic location. Both samples were composed of “all comers”, or voluntary respondents drawn from a general, non-clinical population. The research team was unaware of any clinical concerns or risk factors that may have been present for any of the respondents.

SURVEY ADMINISTRATION

We employed the GAIN-SS (described below), which was administered over the Internet as a Web-based survey. “Zoomerang”, a survey clearinghouse that enables investigators to create Web-based surveys, acted as the hosting service for the instrument.

All respondents were sent a formal e-mail invitation by the research team to complete the survey, along with informed consent materials and a link to the actual instrument. Respondents were able to gain access to the instrument by clicking on a URL link.

Completed instruments were submitted to a secure server, so the privacy of respondents

was maintained. Data from completed instruments were converted into a Microsoft Excel document and transferred to a statistical software program (SPSS) to prepare the necessary tables and analyses. Out of 950 potential expatriate respondents, 455 completed the instrument, yielding a return rate of about 46%.

In the comparison group, or the domestic U.S. general (non-expatriate) sample, the GAIN-SS instrument was embedded in the employer's health risk assessment (HRA). The purpose of an HRA is to identify health risks in a given workforce that may be in need of some kind of medical/behavioral intervention or could adversely impact the employer's bottom line if not addressed. The HRA was available online and in hard copy via an external vendor, Wed MD, and all employees were given a financial incentive to complete the HRA. The external vendor collected the GAIN-SS data over 5 to 6 months, de-identified the GAIN-SS portion of the HRA database, and then sent only the GAIN-SS data to the research team (N=1,460). The sample for the expatriate group was 455 while the comparison group was 1,460, thus there was a 23% to 77% split in distribution among the two groups.

THREATS TO VALIDITY

Despite repeated guarantees of anonymity, self-report surveys of this kind can be associated with a type of strategic response bias, meaning respondents may have an incentive to shape answers when they think those answers could ultimately influence perceptions about their work performance, adjustment or health status. Expatriates and U.S. based employees alike may be motivated to avoid contributing to findings that could potentially negatively impact perceptions of their work performance and life adjustment. Their answers could be shaped out of a concern that results could potentially discredit or challenge their own self-confidence and of course how others may perceive them, namely their employer. Royse refers to this threat as "social desirability", or the tendency of respondents to want their health status to be perceived as acceptable or correct.¹¹ Response bias could potentially occur as some respondents may avoid an answer they perceive as embarrassing or stigmatizing.

This potential for "desirability" is a major concern in an instrument like the GAIN-SS that asks questions about one's mental health and substance use. Similarly, differences in the two groups regarding incentives to complete the questionnaire (the U.S. based group had a financial incentive and the expatriate group did not) may introduce bias that is not well controlled in this study. The other limitation is one of generalization. Since the sample includes subjects from two large multinational manufacturing companies, would the same findings be replicated with other types of multinationals or employee groups?

THE INSTRUMENT

The full Global Appraisal of Individual Needs -Initial (GAIN-I) is a standardized and scientifically validated biopsychosocial that integrates clinical and research assessment for people presenting to behavioral health treatment.¹² It asks about symptoms from DSM-IV-TR that can be used to generate dimensional symptom count measures or categorical diagnostic impressions of specific disorder in the four main dimensions of interest (i.e., internalizing, externalizing, substance, and crime/violence). While well received (it is currently in use by over 750 agencies across the U.S., Canada, and Mexico), it typically takes 2-3 months of training and feedback to get a staff person certified on GAIN administration and then takes 90 to 120 minutes per patient/staff person to actually administer. This is too long for use as a screener in settings like the workplace or internet based health risk assessments where it may only be one of several components and there is limited time or limited staff resources. Thus, there was a need to develop a GAIN-Short Screener (GAIN-SS) that could be (a) easily trained, (b) used in 5 minutes or less to identify people who have a disorder and rule out people who do not, and (c) provide guidance for referral to further assessment and treatment. Consistent with the full GAIN, the GAIN-SS is designed to (a) be valid for both adolescent and adult populations, (b) provide measures of severity overall and the four main dimensions of emotional/behavioral problems (internalizing, externalizing, substance, crime/violence), and (c) triage these dimensions to provide guides to support clinical decision

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making about detailed diagnosis and treatment needs. In this particular study, the crime/violence scale of the GAIN-SS was eliminated at the request of the sponsoring

multi-national employers who permitted the use of the other GAIN-SS scales among its expatriate or U.S. domestic workforce. A copy of the GAIN-SS is provided below.

GAIN-Short Screener (GAIN-SS)				Copyright © 2005 - 2008 Chestnut Health Systems			
Version [GVER]: GAIN-SS 2.0.3							
What is your name?		a. _____	b. _____	c. _____			
		(First Name)	(M.I.)	(Last Name)			
What is today's date? (MM/DD/YYYY) _____/_____/_____							
The following questions are about common psychological, behavioral, and personal problems. These problems are considered significant when you have them for two or more weeks, when they keep coming back, when they keep you from meeting your responsibilities, or when they make you feel like you can't go on.				Past Month	2-12 months ago	1+ years ago	Never
				3	2	1	0
After each of the following questions, please tell us the last time that you had the problem, if ever, by answering, "In the past month" (3), "2-12 months ago" (2), "1 or more years ago" (1), or "Never" (0).							
IDScr	1.	When was the last time that you had significant problems...					
	a.	with feeling very trapped, lonely, sad, blue, depressed, or hopeless about the future?	3	2	1	0	
	b.	with sleep trouble, such as bad dreams, sleeping restlessly, or falling asleep during the day?	3	2	1	0	
	c.	with feeling very anxious, nervous, tense, scared, panicked, or like something bad was going to happen?	3	2	1	0	
	d.	with becoming very distressed and upset when something reminded you of the past?	3	2	1	0	
	e.	with thinking about ending your life or committing suicide?	3	2	1	0	
EDScr	2.	When was the last time that you did the following things two or more times?					
	a.	Lied or conned to get things you wanted or to avoid having to do something?	3	2	1	0	
	b.	Had a hard time paying attention at school, work, or home?	3	2	1	0	
	c.	Had a hard time listening to instructions at school, work, or home?	3	2	1	0	
	d.	Were a bully or threatened other people?	3	2	1	0	
	e.	Started physical fights with other people?	3	2	1	0	
SDScr	3.	When was the last time that...					
	a.	you used alcohol or other drugs weekly or more often?	3	2	1	0	
	b.	you spent a lot of time either getting alcohol or other drugs, using alcohol or other drugs, or feeling the effects of alcohol or other drugs?	3	2	1	0	
	c.	you kept using alcohol or other drugs even though it was causing social problems, leading to fights, or getting you into trouble with other people?	3	2	1	0	
	d.	your use of alcohol or other drugs caused you to give up, reduce or have problems at important activities at work, school, home, or social events?	3	2	1	0	
	e.	you had withdrawal problems from alcohol or other drugs like shaky hands, throwing up, having trouble sitting still or sleeping, or that you used any alcohol or other drugs to stop being sick or avoid withdrawal problems?	3	2	1	0	

		After each of the following questions, please tell us the last time that you had the problem, if ever, by answering, "In the past month" (3), "2-12 months ago" (2), "1 or more years ago" (1), or "Never" (0).		Past Month	2-12 months ago	1+ years ago	Never
				3	2	1	0
CVScr	4.	When was the last time that you ...					
	a.	had a disagreement in which you pushed, grabbed, or shoved someone?		3	2	1	0
	b.	took something from a store without paying for it?		3	2	1	0
	c.	sold, distributed, or helped to make illegal drugs?		3	2	1	0
	d.	drove a vehicle while under the influence of alcohol or illegal drugs?		3	2	1	0
	e.	purposely damaged or destroyed property that did not belong to you?		3	2	1	0
	5.	Do you have other significant psychological, behavioral, or personal problems that you want treatment for or help with? (If yes, please describe below)			Yes 1	No 0	
		v1.					
		v2.					
		v3.					
	6.	What is your gender? (If other, please describe below) 1 - Male 2 - Female 99 - Other					
		v1.					
	7.	How old are you today? _____ years					
For Staff Use Only							
	8.	Site ID: _____			Site Name v. _____		
	9.	Staff ID: _____			Staff Name v. _____		
	10.	Client ID: _____			Comment v. _____		
	11.	Mode: 1) Administered by staff 2) Administered by other 3) Self administered					
	12.	Number of 2s and 3s: IDScr: ____ EDScr: ____ SDScr: ____ CVScr: ____ TDScr: ____					
	13.	Referral: MH ____ SA ____ ANG ____ Other ____			14. Referral Code: _____		
	15.	Referral Comments:					
		v1.					
		v2.					
		v3.					
This instrument is copyright © 2005-2008 Chestnut Health Systems. Use of this measure is permitted for anyone who holds a GAIN license or is requesting a new one. For more information on the GAIN-SS or licensing, please see http://www.chestnut.org/li/gain , e-mail GAINSupport@chestnut.org , or contact Joan Unsicker at (309) 451-7806 or junsicker@chestnut.org .							

The 3- to 5-minute GAIN-SS, the instrument used in this study, was designed to serve as a screener in general populations to quickly and accurately identify clients whom the full 1.5- to 2-hour full GAIN would identify as having one or more behavioral health disorders (e.g., internalizing or externalizing psychiatric disorders, substance use disorders, or crime/violence problems), which would suggest the need for a referral to a mental health professional. It also rules out those who would not be identified as having behavioral health disorders. The GAIN-SS is designed for self- or staff administration with paper and pen, on a computer, or on the web.

FORMAT

GAIN-SS responses are given in terms of the recency of the problem described in the questions: 3 = past

month; 2 = 2 to 12 months ago; 1 = 1+ years ago; 0 = never. The number of past-month symptoms (number of 3s) is used as a measure of change; the number of past-year symptoms (number of 3s or 2s) is used to identify who is likely to have a current diagnosis; and the number of lifetime symptoms (number of 3s, 2s, or 1s) is used as a covariate measure of lifetime severity. The recency measures can also be combined to create course specifiers (e.g., early remission means having a lifetime problem but not in the past month; sustained remission means having a lifetime problem but not in the past year).

SUMMARY OF PSYCHOMETRICS

Dennis, Chan, & Funk found that for both adolescents and adults the 20-item total disorder screener (TDScr) and its 4 5-item sub-screeners

(internalizing disorders, externalizing disorders, substance disorders, and crime/violence) have good internal consistency (alpha of .96 on the total screener), were highly correlated ($r = .84$ to $.94$) with the 123-item scales in the full GAIN, had excellent sensitivity (90% or more) for identifying people with a disorder, and excellent specificity (92% or more) for correctly ruling out people who did not have a disorder.¹²

A confirmatory factor analysis of the structure of the GAIN-SS showed that it is also consistent with the full GAIN model after allowing adolescent and adult path coefficients to vary and cross-loading paths between conduct disorder items with crime/violence items. The confirmatory factor analysis was slightly less accurate than the full-scale version in terms of the confirmatory fit index (CFI; .87 for the GAIN-SS vs. .92 for the full GAIN, where as the CFI approaches 1 the model fits the data better) and slightly more precise in terms of the root mean square error of approximation (RMSEA; .05 for GAIN-SS vs. .06 for the full GAIN, where as the RMSEA goes down there is less unexplained variance). This suggests that each of the subscreeners has good discriminant validity and that the total structure is consistent with the model used with the full GAIN.

ADDITIONAL INSTRUMENT

For the expatriate group, in addition to the GAIN-SS, a simple, Likert style scale was added that asked respondents about their degree of satisfaction of with marital, family, and social relationships.

RESULTS

U.S. VS. EXPATRIATE SAMPLES

As described, the GAIN-SS is designed to evaluate relative risk of a respondent by assigning them to one of three categories (Low, Moderate and High) for a Total Score and three subscale scores (Internalizing, Externalizing and Substance Disorder). Given this categorical assessment, we employed a series of Chi Square analyses in which we compared the percentage of Expatriate and US based participants who fell into each category (Low, Moderate and High) for the GAIN-SS score. This approach was repeated for the Total Score, and each of the subscales. For each comparison we have presented effect sizes for

so that interpretation will rest not only on statistical significance, but also an interpretation of the magnitude of effects.

Our analyses permitted us to evaluate whether the proportion of individuals in each category of risk differed across the Expatriate and U.S. based groups. For the Total Score, Internalizing, Externalizing and Substance Disorder Screens, larger proportions of Expatriates had Medium and High risk status than participants in the U.S. based sample (see Table 1), and fewer had Low risk status.

While the differences in risk emerged across the U.S. and Expatriate groups, we were interested in determining whether there were elements of the Internalizing subscale that were particularly present in the Expatriate sample. We were interested in this issue for two reasons. First, problems captured by this subscale have been identified clinically as some of the most common and impairing mental health challenges for expatriates (i.e., problems with anxiety and depression). Second, the effect size for the difference was the largest of all the comparisons (.41), and warranted further exploration.

The Internalizing subscale is composed of

GAIN Scale	Expatriate (n = 455)	U.S. (n = 1,460)	(df) Chi Square	Effect Size
Total Screen			(2) 61.62 ‡	0.37
Low	36%	52%		-0.36
Moderate	32%	32%		0.01
High	32%	17%		0.33
Internalizing			(2) 75.33 ‡	0.41
Low	49%	69%		-0.50
Moderate	34%	25%		0.19
High	17%	7%		0.22
Externalizing			(2) 25.59 ‡	0.23
Low	69%	77%		-0.25
Moderate	27%	21%		0.11
High	5%	2%		0.06
Substance Disorder Screener			(2) 27.69 ‡	0.24
Low	72%	83%		-0.36
Moderate	26%	16%		0.21
High	2%	1%		0.02

‡ $p < .001$

four items that ask the participant to report whether they feel trapped or depressed, have problems sleeping, feel anxious, or if they have had a hard time paying attention. These individual items and the proportion of each group (U.S. vs. Expatriate samples) responding that they had experienced the problem are presented in Table 2.

In each of these analyses significant differences emerged, with Expatriates endorsing items that indicate more anxiety, depressed mood, problems with sleep and problems with attention more frequently than did the U.S. sample.

For the Expatriate sample we were interested in determining whether GAIN-SS risk status was related to self evaluations of work performance, and self reported satisfaction in their social, marital and family relationships. We employed a Chi Square analyses in which we evaluated whether GAIN-SS Internalizing status (Low, Moderate and High) affected the proportion of individuals who fell into each category for both Job Performance and Job Satisfaction.

This strategy was also used for self reported ratings for satisfaction with participants' Marital Relationship, Family Relationship and Social Relationships. Significant differences emerged from each of these analyses. Effect sizes were large, ranging between .63 to .73 (see Table 4), where Moderate and High risk status was related to higher rates of Not Satisfied and Unsatisfied for relationships.

DISCUSSION

The primary comparisons of interest in this study all yielded significant results. Expatriates had higher overall risk for mental health problems, including risk for Internalizing problems, Externalizing problems, and Substance Use Disorders. These findings are largely consistent with the notion that living as an expatriate involves very significant stress and high demand for adjustment. While these demands can be (and frequently are) exciting, engaging and interesting, they can also converge to the point where they become impairing and precipitate significant mental health or psychosocial problems.

We hypothesized that Expatriates would be particularly prone to Internalizing problems. This position is consistent with the notion that moves, cultural dislocation, stress and high demand for adjustment and adaptation can lead

Table 2: Individual Items, Internalizing Subscale: Expatriate vs U.S. Groups

GAIN Internalizing Subscale Item	Expat (n = 455)	U.S. (n = 1,460)	(df) Chi Square	Effect Size
Trapped/Depressed	31%	10%	(1) 111.54 ‡	.42
Trouble Sleeping	36%	24%	(1) 22.41 ‡	.24
Anxious/Nervous	25%	11%	(1) 52.29 ‡	.28
Hard Time Paying Attention	13%	8%	(1) 11.03 ‡	.11

‡ p < .001

Table 3: Self Reported Job Performance and Job Satisfaction by GAIN Internalizing Satatus (Low, Moderate and High)

	GAIN Low Intern. N = 211	GAIN Mod. Intern. N = 146	GAIN High Intern. N = 75	(df) Chi Square	Effect Size
Job Performance					
Below Average	0%	1%	4%	(6), 30.0 ‡	0.55
Average	2%	8%	12%		
Good	65%	74%	65%		
Outstanding	33%	18%	19%		
Job Satisfaction				(6), 65.3 ‡	0.85
Not Satisfied	3%	15%	25%		
Unsatisfied	50%	54%	56%		
Satisfied	47%	25%	11%		
Exceptionally Satisfied					

‡ p < .001

Table 4: Satisfaction with Relationships by GAIN Internalizing Status (Low, Moderate and High)

	GAIN Low Intern. N = 211	GAIN Mod. Intern. N = 146	GAIN High Intern. N = 75	(df) Chi Square	Effect Size
Social Relationships					
Not Satisfied	4%	6%	13%	(6), 39.0 ‡	0.63
Unsatisfied	14%	26%	35%		
Satisfied	49%	49%	45%		
Exceptionally Satisfied	33%	19%	7%		
Marital Relationship					
Not Satisfied	2%	5%	10%	(6), 40.9 ‡	0.72
Unsatisfied	5%	14%	29%		
Satisfied	30%	36%	22%		
Exceptionally Satisfied	64%	46%	39%		
Family Relationship					
Not Satisfied	1%	2%	7%	(6), 49.4 ‡	0.73
Unsatisfied	7%	20%	32%		
Satisfied	45%	47%	45%		
Exceptionally Satisfied	48%	31%	16%		

‡ p < .001

to problems, and in particular Anxiety Disorders and Depression. We were able to use the item analysis of the Internalizing scale to gain some insight into this issue. When we examined the proportions of individuals that endorsed individual items for this measure, it emerged that three times as many Expatriate participants endorsed feeling trapped/depressed as did the U.S. based participants. Similarly, Expatriate participants endorsed feeling anxious/nervous at twice the rate that U.S. participants did. Taken together, these findings suggest that anxiety and depressed mood play a central role in the experience of expatriates experiencing emotional problems.

More broadly, nearly 2.5 times the proportion of Expatriates were at high risk for Internalizing problems when compared to their U.S. counterparts. This is not just a statistically significant finding, but is clinically meaningful. When the Moderate and High categories are pooled, more than 50% of the Expatriate group provides self-report consistent with risk for internalizing disorders such as Anxiety Disorders and Depression. This finding is in contrast with the U.S. sample, where if the High and Moderate categories are pooled, less than a third of the sample is assessed as being at risk for internalizing problems.

Anecdotal evidence and clinical experience suggested that substance disorder risk would be higher in the Expatriate sample than the U.S. sample, and this was, indeed, the case. A larger proportion of Expatriates were in the High and Moderate risk categories than the U.S. sample. This suggests that individuals in Expatriate group use substances at higher rates and in greater amounts, and with more negative consequences than do the U.S. based group. This is likely related to several factors. Community standards in many expatriate communities are frequently more liberal regarding alcohol use, which we expect reduces the stigma and social pressure that would otherwise limit high levels of use. In addition, as noted above, living as an expatriate is related to high levels of stress which has been linked to higher substance use. Together, these factors work synergistically to create an environment that elicits more frequent and more intense substance use.

We were surprised by the differences that emerged on the Externalizing scale for the Expatriate and U.S. based samples, where members of the expatriate community were at higher risk for externalizing problems than the U.S. based sample. We did not expect to find differences on this measure, as the scale pulls for symptoms that

are less controlled (e.g., fighting), and would not normally be expected in highly functional, non-clinical samples. Again, we view this as consistent with a globally stressful existence of expatriate communities where emotional, professional and relational demands are exceedingly high. This finding suggests that individuals are both feeling emotionally disrupted, and their behavior reflects this emotional state.

For the Expatriate sample we were able to examine the ways in which GAIN-SS subscales were related to self reported Job Performance and Satisfaction. In both of these domains, we used the GAIN-SS Internalizing subscale risk status to examine whether higher risk was related to job performance or satisfaction. Again, the pattern of findings remains consistent; individuals in the High risk group disproportionately rated their work as being Below Average and Average when compared to the Low risk group. Similarly, participants with High and Moderate risk for Internalizing were markedly less satisfied with their work than their Low risk counterparts. This is particularly important, given the fact that the consequences of “wash out” from postings overseas represents a very significant disruptions for individuals, families, and the organizations that the employees work for. It suggests that high risk for internalizing emotional problems such as anxiety and depression may be related to the ways in which individuals experience their work lives. It follows that effectively identifying and treating emotional problems is both clinically appropriate, as well as rational for organizations that stand to lose economically when their employees are not successful.

Satisfaction with relationships (Social Relationships, Marital Relationship and Family Relationship) were all highly related to Internalizing risk status, with the effect size of these analyses ranging from .63 to .73. High and Moderate risk were related to dissatisfaction with all of the relationships we evaluated. Again, this suggests that there are meaningful and powerful linkages between an individual’s internal experience of distress and the ways in which they relate to people in their life.

While these findings are interesting and instructive, there are a number of limitations to this the study. Given the fact that these data were not collected prospectively, it is not possible to conclude what specifically conveys risk to the Expatriate sample. We strongly suspect that it is the experience of living overseas that is linked to

increased risk, but we cannot rule out the possibility that there are sample bias effects that may account for the differences. Similarly, it is not possible to establish the directionality of findings. For example, we found that High risk Internalizing participants were disproportionately dissatisfied with their social relationships. It may also be the case that dissatisfying social relationships cause internalizing problems, or that internalizing problems cause problems in social relationships. These issues need to be evaluated in further studies. Similarly, the GAIN-SS is not a truly diagnostic instrument but rather a screening measure that evaluates risk and the need for more comprehensive assessment. Further work needs to be done to evaluate the ways in which risk documented in this study relates to more formal diagnosis and functional impairment.

In sum, we found that individuals living as expatriates experience a range of risk at rates that exceed their U.S. based counterparts. Expatriates appear to experience higher risk for internalizing and externalizing problems, as well as higher risk for substance abuse. This risk is not contained to emotional experiences. High risk internalizing problems were also related to greater rates of dissatisfaction with work, marital relationships, family relationships and job performance. Taken together, these findings suggest that the experience of living overseas is a difficult and demanding one, and that if things begin to degrade for individuals emotionally, a cascade of problems can be expected to accompany the emotional shift. These findings have implications for clinicians working with expatriates and their families, Employee Assistance Programs that serve expatriates, global benefit plans that cover mental health services for expatriates, and of course Human Resource executives responsible and accountable to organizations that employ individuals and send

them overseas. It is clear the mental health needs in the expatriate community are significant and real, and to a large degree more pronounced than many in the community have suggested. It follows that organizations should consider ways in which they can appropriately identify individuals at risk in order to proactively provide services that reduce the disruption and expense that mental health problems can cause.

This is the only study that we are aware of that has empirically evaluated risk for mental health disorders in an expatriate population. While there have been a number of authors that have written about anecdotal autobiographical accounts, clinical experience, or case histories, none have used an empirical and validated measurement tool to evaluate whether expatriates living overseas experience different rates of mental health problems from those living in their home country. Second, taken in their entirety, these data suggest that expatriates do, in fact, experience extraordinarily high stress as well as social and emotional disruption that result from dislocation and moves. These factors, in turn, would be expected to result in higher rates of impairing emotional disruption and convey higher risk for mental health problems.

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