

Psychological Wellbeing in Three Groups of Skilled Immigrants to New Zealand

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The present study sought to investigate the current levels of psychological wellbeing in three immigrant groups to New Zealand. In addition, we sought to determine whether aspects of the acculturation process were related to mental health outcomes. This is a cross-sectional study from the fifth wave of annual in-depth interviews with three groups of recently arrived skilled immigrants from India, the People's Republic of China and South Africa. Interviews focused on international contacts and the migration of relatives and friends, housing, language, qualifications and employment, and social participation. Participants were also asked about health difficulties, homesickness, and whether they felt settled in New Zealand. The SF-36 Health Status Questionnaire (Ware, 1997), assessed the respondent's functional status and wellbeing in relation to four health concepts: vitality, social functioning, role limitations due to emotional health, and general mental wellbeing. The immigrant group differed significantly from the New Zealand population on only one of the four mental health scales, Vitality, with immigrants reporting higher levels. Different acculturation factors were found to predict different mental health subscales in regression analyses. Gender, home contact and health difficulty explained 22% of the unique variance in Vitality; employment status and health difficulty explained 18% of the variance in Social Functioning; health difficulty significantly contributed to the explained variance (14%) in the Role limitations due to emotional health subscale; gender, home contact and health difficulty explained 27% of the variance in the Mental Health subscale. There was little evidence for lower levels of psychological wellbeing for the three immigrant groups compared to the general New Zealand population, nor for differences between the three groups. However, results highlight the importance of differential predictors in the understanding of psychological health in migrant groups.

Immigration is a significant contributor to New Zealand's social and economic development. For the decade ending 30 June 2002 almost 392,000 people were approved for residence and over the same period New Zealand recorded a net gain of about 67,600 permanent and long-term arrivals over departures. Reflecting the impact of major change in immigration police, immigrants under the 'general skills' or 'business' categories from China, South Korea, Taiwan,

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India and South Africa have figures prominently among the new settlers along with those from the traditional sources of Great Britain and Australia. Despite large numbers of migrants entering New Zealand, however, there is limited research on the mental health consequences of the immigration process, and the effect it has on settlement outcomes (Abbott et al., 2000; Abbott et al., 1999; Bennett et al., 1997; Cheung, 1998; Cheung & Spears, 1995).

Empirical research suggests that immigration can have an adverse effect on the psychological and physical health of immigrants. Because migration often requires a significant process of adaptation, involving an intensive use of one's psychological and social resources, it is expected that a relationship would exist between immigration and mental health problems (Carmel & Lazar, 1998). Migration alone does not necessarily impact adversely on mental health, as there are typically associated stressors, such as unemployment. Nonetheless, empirical research covering a wide range of ethnic groups provides consistent evidence for the prevalence of mental health problems amongst immigrants in a number of countries including Australia (Khavarpour & Rissel, 1997; McDonald et al., 1996; Thompson et al., 2002), Israel (Carmel, 2001), Canada (Dunn & Dyck, 2000; Kopec et al., 2001), and the United States (US; Gonzalez et al., 2001).

Researchers have endeavoured to explain why there is an overrepresentation of migrants among those who experience mental health problems. One explanation suggests aspects of acculturation may play an important part. The term acculturation refers to cultural change that results from prolonged and direct contact between two distinct cultural groups (Berry, 1990). In essence, acculturation occurs when a nondominant ethnic group adapts to a dominant society (Ekbad et al., 1998). Psychologically, adjusting to a new culture results in changes to the immigrant's values, behaviours, and beliefs toward the host country. The degree of acculturation stress experienced typically depends on the amount of behaviour change required during the adaptation process (Schmitz, 2001). Several psychological explanations have been offered for the different stages immigrants pass through when adjusting to the host culture.

Perhaps the most widely accepted model of the acculturation process has been developed by Berry (1990). Berry divided the adjustment patterns of immigrants into four categories, based on two questions: 'Is it considered to be of value to maintain my cultural identity and characteristics?' and 'Is it considered to be of value to maintain relationships with other groups?' The answers to each question broadly define the category each immigrant falls into: assimilation, integration, separation or marginalisation. *Assimilation* occurs when the immigrant abandons or rejects his/her traditional cultural conventions or identity and is absorbed into the dominant culture. *Integration* is when the immigrant maintains some of his/her cultural integrity, as well as adjusting their behaviour to become an integral part of the dominant societal framework. *Separation* is defined as the situation when the immigrant has no interest in building a tangible relationship with the dominant culture and holds onto his/her traditional culture. Finally, *marginalisation* usually results from severe acculturation stress where, no longer acknowledging his/her cultural group and unable to adjust to the larger society, the immigrant in the adjustment process rejects both the old and the new culture.

Conceptually, each acculturation style has far reaching consequences for the immigrant's psychological wellbeing. According to Berry (1990) separation and

marginalisation tend to be ineffective strategies in adjusting to a new culture as the societal issues the immigrant is confronted with remain unresolved, which may result in declining mental health. Berry (1990) argues that integration and assimilation result in the least stress on immigrants as they selectively adopt the mainstream culture. Integration is often seen in the bicultural individual who derives benefits from both population groups. For example, research by Niles (1999) in Australia found that immigrant groups who preserved their values, traditions and culture (and thus maintained a strong ethnic identity) while partially adopting Australian culture in terms of language, education and societal norms, had a high sense of psychological wellbeing. Niles (1999) argued that maintaining a strong sense of cultural identity was related to better mental health outcomes.

There are several factors that contribute to and determine acculturation style, with social and economic contexts (including host country attitudes towards the immigrant) playing a major role (Ekblad et al., 1998). Without adequate social or cultural support, immigrants can face numerous psychological problems, often related to unemployment, poverty, substandard housing, prejudice, discrimination, and lack of health care services and education. Moreover, acculturative experiences can often exacerbate the effect of daily stressors. These additional stressors are especially potent for immigrants who experience a great distance between the cultural norms of their former country and the society of settlement (Schmitz, 2001). When the difference is significant, and the immigrant is unable to cope with the cultural changes and acquisition of language skills, the experiences can often lead to severe acculturation stress during the resettlement period (Ekblad et al., 1998). Age also has an impact on the acculturation process, with older immigrants clinging to their traditional past and resisting the cultural norms of the host country (Ghaffarian, 1998). The extent of acculturation stress and coping strategies differs between individuals, and thus determines the long-term outcomes for each immigrant.

The present study sought to investigate the current levels of psychological wellbeing in three immigrant groups to New Zealand. In addition, we sought to determine whether aspects of the acculturation process were related to mental health outcomes.

Method

Participants

The cross-sectional data reported here is from the fifth wave of data collection from the New Settlers Programme, a longitudinal study involving annual in-depth interviews with three groups of recently arrived skilled immigrants from India, the People's Republic of China and South Africa. The Indian and South African participants were primarily recruited with the assistance of the New Zealand Immigration Service (NZIS) via invitations mailed out to new arrivals eligible for inclusion in the study. For the Chinese, recruitment was accomplished mainly via personal networks of one of the authors (Henderson) and a snowballing technique. Of the original 107 first round participants, 11 had returned to their original home country by round five, 7 had moved to another country, 7 were lost to the study and 2 withdrew from the study. The final fifth round sample consisted of 24 Chinese, 26 Indian and 30

South African participants. Of the 80 participants, 60 were male and 20 were female. Ninety-four per cent were either married or partnered. The average age was 37.75 years ($SD = 6.47$), with a range of 27 to 57 years. Twenty-seven participants took up New Zealand residence in 1997 and 53 in 1998. Eight-three percent of the Chinese participants, 42% of the Indian participants and 7% of the South African participants sat an English test before coming to New Zealand. Nearly 53% of participants had a postgraduate degree or diploma; 34% had a bachelors degree; and 13% had a diploma/certificate or trade certificate.

Procedure

Annual in-depth structured interviews were conducted in English and focused upon six topic areas: international contacts and the migration of relatives and friends, housing, language, qualifications and employment, social participation, and health and wellbeing.

Measures

For the purposes of this analysis, a number of variables were combined to form composite variables.

International contacts. A variable called *Home Contact* was constructed by combining questions on whether, in the past 12 months, the participant had assisted relatives to immigrate to New Zealand, had visited their country of origin, had regular contact with friends from the country of origin and friends from the country of origin had visited them in New Zealand. Higher scores indicated more contact with friends and family from the country of origin.

Housing. A *Housing* variable was constructed based on the number of times the participants had moved house in the past 12 months, the number of people living in the house, the standard of and satisfaction with present housing, and feelings about the area participants lived in. Higher scores indicated a better housing situation.

Language. Participants were categorised as either having English as a first learned or second learned language. Those for whom English was a second learned language were also asked whether they had made a conscious effort in the past 12 months to improve their English (yes = 1, no = 2). These participants were asked to rate on a five-point scale how they would compare their current English language ability (both written and spoken) to their ability 12 months earlier (1 = much better, 5 = much worse).

Qualifications and employment. Participants were asked about their current employment status (full-time, part-time or unemployed). Those employed were also asked whether they were able to use their qualifications in their current job (both pre-migration and New Zealand qualifications).

Social participation. A *Social* variable was constructed by combining two variables which asked how many of the participant's friends outside of work and current work associates were from the same country of origin as themselves on a five-point scale (1 = all, 5 = none).

Health and wellbeing. Participants were asked whether any particular event or feature with respect to their health since taking up residence had been a difficulty with regard to migration (1 = yes, 2 = no). They were also asked whether they or members of their family had experienced homesickness in the previous 12 months

(1 = yes, 2 = no), and whether they felt settled in New Zealand, on a 5-point scale (1 = Completely settled, 5 = Very unsettled). The SF-36 Health Status Questionnaire (Ware, 1997), assessed the respondent's functional status and wellbeing in relation to eight health concepts: physical functioning; role limitations due to physical health; bodily pain; general health perceptions; vitality; social functioning; role limitations due to emotional health; and general mental wellbeing. Responses to the 36 questions were scored and summed into the eight scales, corresponding to each of the health concepts. For the present analysis only those four scales relating to wellbeing were used (vitality, social functioning, role limitations due to emotional health, and general mental well being). Higher scores represent better self-reported wellbeing.

Results

Comparisons With New Zealand Population

Means and standard deviations on the four SF36 mental health scales for the total sample, the three immigrants groups and the New Zealand population are provided in Table 1. Of the four scales only vitality was significantly different between the total immigrant sample and the New Zealand population, with immigrants rating their vitality higher ($t(77) = 2.85, p < .01$). A one-way analysis of variance was conducted to test for differences on the four scales between the three immigrant groups. Only Role limitations due to emotional health was significant ($F(77)=4.09, p < .05$). Subsequent ranges tests revealed a significant difference between the South African and Indian participants with South Africans recording lower scores on this scale.

Predictors of Mental Health

Means and standard deviations for the four SF36 subscales across gender and the categorical acculturation variables are presented in Tables 2 and 3. There were significant differences across gender on the vitality ($t(78) = 2.70, p < .001$) and

TABLE 1

Means and Standard Deviations for the Total Immigrant Sample, Country of Origin Groups and New Zealand Population on the Four SF36 Mental Health Scales

	Vitality	Social Functioning	Role Emotional	Mental Health
New Settlers	71.5	90.03	87.34	79.9
Total Sample (N = 80)	(16.92)	(18.38)	(29.67)	(15.0)
China (N = 24)	72.36 (13.26)	89.17 (11.83)	93.92 (21.25)	79.99 (12.27)
India (N = 26)	72.69 (20.49)	93.27 (15.10)	94.87 (18.12)	81.08 (13.12)
South Africa (N = 30)	69.83 (20.49)	87.92 (24.45)	75.56 (39.08)	78.93 (18.46)
NZ population (N = 7445-7736)	65.6 (18.5)	86.6 (20.6)	85.0 (30.9)	78.0 (15.3)

TABLE 2

Means and Standard Deviations for the Four SF36 Subscales Across Gender

	Means and Standard Deviations				
	Males		Females		<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Vitality	74.36	(15.95)	63.00	(17.27)	**
Social Functioning	92.75	(14.60)	81.88	(25.48)	NS
Role Emotional	90.90	(23.64)	76.67	(42.02)	NS
Mental Health	82.07	(14.10)	73.60	(16.18)	*

Note: NS = Not significant, * $p < .05$, ** $p < .01$

mental health ($t(78) = 2.24, p < .05$) subscales with females reporting lower levels on both scales. There was a significant difference on the social functioning subscale across employment status with those employed on a full-time basis reporting higher scores ($t(75) = 3.12, p < .01$). Looking at those in full-time employment, there were no significant differences between those using their qualifications in their jobs and those who were not. English language status was significantly related to one of the four subscales (role limitations due to emotional health), participants with English as a second language scoring higher than those whose first language was English ($t(35.70) = 2.156, p < .05$). Among participants with English as a second language, there were no significant differences across the mental health subscales for those who had made a conscious effort to improve their English language ability in the previous 12 months compared to those who had made no such plans.

There were a number of significant correlations between the four subscales and continuous acculturation variables (see Table 4). Vitality was positively correlated with home contact and negatively related to health difficulty. Social functioning was also negatively correlated with health difficulty. The role limitations due to emotional health subscale was positively correlated with housing, and negatively related to health difficulty. The mental health subscale was positively correlated with home contact and negatively related to both health difficulty and feeling settled in New Zealand. Age and ratings of spoken and written English ability were unrelated to the four scales.

Four regression analyses were undertaken to investigate which aspects of the acculturation process were related to the four SF36 scales for mental health. Those variables with significant bivariate relationships with the SF36 scales were entered as independent variables. As shown in Table 5, different acculturation factors were found to predict different mental health subscales. Gender, home contact and health difficulty explained 22% of the unique variance in Vitality ($F(3, 74) = 8.12, p < .001$). Employment status and health difficulty explained 18% of the variance in Social functioning ($F(2, 73) = 9.40, p < .001$). Only health difficulty significantly contributed to the explained variance (14%) in the Role limitations due to emotional health subscale ($F(5, 69) = 3.40, p < .01$).

TABLE 3
Means and Standard Deviations for SF36 Mental Health Subscales Across Categorical Acculturation Variables

	Vitality	Social functioning	Role emotional	Mental health
Employment				
Full-time (N = 64)	72.50 (16.97)	92.77 (15.56)	89.58 (28.41)	82.00 (11.99)
Part-time or unemployed (N = 13)	66.92 (17.50)	75.96 (26.25)	79.49 (34.80)	69.54 (23.53)
Use of qualifications in job				
Pre-migration qualifications (N = 30)	71.33 (17.17)	91.25 (18.02)	88.89 (29.47)	83.2 (11.57)
NZ quals. (N = 10)	71.50 (21.35)	93.75 (19.76)	90.00 (31.62)	77.2 (13.60)
Both pre-migration and NZ qualifications (N = 5)	63.00 (14.40)	87.50 (12.50)	100.00 (0.0)	70.40 (15.39)
Not using qualifications (N = 18)	76.67 (14.45)	96.53 (8.36)	87.04 (30.55)	85.78 (8.91)
Language				
First language (N = 28)	68.38 (20.41)	87.05 (25.11)	76.19 (39.40)	79.43 (18.82)
Second Language (N = 51)	73.23 (14.79)	91.67 (13.62)	93.46 (21.10)	80.24 (12.81)
Effort to improve English:				
Yes (N = 9)	75.00 (10.90)	88.89 (11.60)	81.48 (37.68)	81.78 (9.61)
No (N = 42)	72.38 (15.35)	92.26 (14.06)	96.03 (15.09)	79.90 (13.47)

TABLE 4
 Correlations Between Continuous Acculturation Variables and the Four SF36 Mental Health Variables

	Vitality	Social functioning	Role emotional	Mental health
Age	.053	.154	-.034	.215
Housing	.064	.036	.265*	.032
Spoken English	-.082	.008	.220	-.133
Written English	-.109	-.061	.175	-.164
Home Contact	.255*	.121	.159	.346**
Social	.103	.016	-.026	.061
Health difficulty	.333**	.300**	.225*	.270*
Homesick	-.039	-.019	.099	.100
Settled in New Zealand	-.193	-.058	-.080	-.282*

Finally, gender, home contact and health difficulty explained 27% of the variance in the Mental Health subscale ($F(4, 71) = 7.93, p < .001$).

Discussion

While there is considerable evidence across a wide range of studies for the existence and overrepresentation of mental health problems among migrants, we found little evidence in the present study for lower levels of psychological wellbeing for three immigrant groups compared to the general New Zealand population. The three groups reported levels of vitality, social functioning, role emotionality and mental health, recorded by the SF36 mental health subscales, which were similar to those of other New Zealanders. That the study participants had all been resident in New Zealand for four to five years may help to explain their relatively high levels of wellbeing. Berry (1990) argues that integration and assimilation, where migrants selectively adopt the mainstream culture, results in fewer adjustment difficulties and mental health problems. The length of time in the adopted country clearly has consequences for these acculturation adjustment patterns.

We investigated acculturation factors and their contribution to levels of wellbeing through a series of multiple regressions. A number of factors were found to contribute significantly to wellbeing.

Gender

Gender was a significant predictor of psychological wellbeing on two of the subscales. Women reported significantly less vitality and lower mental health scores than men. The differences in the current sample may be partially explained by the acculturation process. Ghaffarian (1998) also found lower levels of mental health for women in a group of Iranian immigrants to the US and suggested that some immigrant women may live more stressful lives than their male counterparts. For instance, they may have been exposed to fewer acculturative experiences (Ghaffarian, 1987) and may therefore be more culturally resistant, leading to poorer adjustment. Another possibility is that moving to the host country may also entail, for some women, major

TABLE 5

Regression Analyses of SF36 Mental Health Subscales on Demographic and Acculturation Variables

DVs	IVs	Beta	R	Adjusted R ²
Vitality	Gender	-.25*	.50	.22***
	Home contact	.27*		
	Health difficulty	.31**		
Social functioning	Employment status	-.33**	.45	.18***
	Health difficulty	.29**		
Role emotional	Country of origin 1	.25	.44	.14**
	Country of origin 2	.23		
	Health difficulty	.22*		
	English language status	.11		
	Housing	.21		
Mental health	Gender	-.26*	.56	.27***
	Home contact	.31**		
	Health difficulty	.22*		
	Settled in NZ	.18		

shifts from traditional gender roles in order to adapt to the new society (Ekblad et al., 1998). It should also be noted that differences between the sexes on SF36 subscales (particularly for mental health) are a consistent finding elsewhere (e.g., Ministry of Health, 1999; Australian Bureau of Statistics, 1997).

Friends and Family

Contact with friends and family from the home country was a significant predictor of vitality and mental health. Keeping up such contact may serve to strengthen or at least maintain cultural identity in the host country and result in better mental health outcomes as Niles (1999) has argued. Berry (1990) also argues that immigrants who adopt both the native and the mainstream cultures fare better in terms of psychological health. However, in contradiction to this suggestion, in the current study, contact with fellow countrymen in the adopted country was unrelated to wellbeing. That is, those who reported that the majority of their friends and workmates were from the same country of origin reported similar levels of wellbeing to those who reported fewer countrymen among their friends and work colleagues. This may reflect a temporal phase of the acculturation process, i.e. having been resident for five years in New Zealand the participants may now be in an adaptation phase (Berry 1990) where the lack of day-to-day reinforcement of cultural identity (through contact with countrymen) is less deleterious than earlier in the acculturation process.

Employment

Employment status only contributed significantly to one of the mental health scales, Social Functioning. These findings suggest that being in full-time employment enabled the participants to more fully engage in social activities without interference from physical or emotional problems. As Aycan and Berry (1996) suggest, employment among immigrants not only provides income but status and identity enabling the individual to develop interpersonal relationships with others in society. Clearly, full-time employment also provides economic advantage with regard to health care utilisation. Given the small number of unemployed in the present sample ($N = 4$), it is unclear from the findings whether part-time work serves to enhance social functioning compared to unemployment. However, four (all Chinese) of the nine part-timers were currently studying for tertiary qualifications, suggesting that part-time employment may serve to facilitate social functioning.

Much has been made of the frequent inability of recent immigrants to use their qualifications from their country of origin for gaining satisfactory employment in New Zealand (Department of Internal Affairs, 1996; Henderson et al., 2001; North et al., 1999). This is an important issue, especially for skilled professionals as the ability to be employed in one's area of training arguably reduces the risk of migration adjustment (Aycan & Berry 1996). In the present study, participants were asked whether they were using their qualifications in their current main job. Nearly 47% of employed participants were currently using pre-migration qualifications, 16% were using New Zealand acquired qualifications and 8% were using both. However, 28% were not using either their pre-migration qualifications or those acquired in New Zealand. The opportunity to use pre-migration qualifications was not found to be related to wellbeing.

It has been suggested that active recruitment of skilled workers and overcoming the failure to meet work expectations is the key contributor to positive settlement outcomes (New Zealand Immigration Service, 2003). Perhaps this is so. Nevertheless, while the results of the present study suggest employment status may play a role in facilitating social integration, the findings should be treated with caution particularly those related to use of qualifications due to the small sample size and low rate of unemployment (the latter feature reflecting the departure overseas of a number of the least successful migrants).

Language

The status of individuals' English was unrelated to any of the four subscales. The adoption of the host country language is thought to result in less acculturation stress and fewer adjustment problems (Ghaffarian, 1998; Ward, 1999). Examining specific language variables, there were no differences in health between those participants for whom English was a second language compared to native-English speaking participants. Those that rated their English as having improved over the last 12 months reported levels of wellbeing similar to those who felt that their English had remained the same or worsened. It should be noted that almost all participants met a basic English language criteria in order to qualify for residence approval.

Health

Experiencing a health difficulty was a consistent predictor of wellbeing across all four subscales. Participants who felt an event or feature of their health had been a difficulty with regard to migration and settlement in New Zealand reported poorer

psychological wellbeing. Content analysis of qualitative responses regarding health difficulties revealed a number of issues, including: the cost of care, particularly dentistry; the waiting time to see a specialist and the layers of bureaucracy (accessibility) in order to do so; differences between New Zealand and country of origin health services with regard to continuity of care (a number of participants noted the difficulty of maintaining a relationship with only one doctor in a practice); and communication problems also featured with some participants noting language difficulties and a lack of communication between health professionals.

Finally, the 'mental stress' and resulting depression from the arduous nature of the immigration process was mentioned, as well as a lack of family support during illness. The hardship of separation from kith and kin abroad was frequently remarked upon, especially by female participants and partners. Carmel (2001) found that new immigrants to Israel tended to report low social support and suggests that the immigration process weakens the psychological resources available to migrants with resultant effects on health.

Comparing the three immigrant groups on psychological wellbeing variables at the bivariate level, the only significant difference was on role limitations due to emotional health with South Africans reporting lower levels on this scale than Indian participants. However, in multivariate analyses (see Table 4) this small effect disappears, suggesting that although the acculturation experience may differ due to factors related to culture and ethnicity, there is little evidence for any differential psychological impact in the present study.

Summary

The data collected from the three migrant groups provides little evidence for lower levels of psychological wellbeing compared to the general New Zealand population. There was also negligible support for differences in psychological wellbeing between the three migrant groups. Regression analyses showed a number of acculturation factors significantly associated with psychological wellbeing, with the presence of a health problem that caused difficulty with regard to migration, a consistent predictor across all four mental health sub-scales. Results highlight the importance of differential predictors in the understanding of psychological health in migrant groups.

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