

Prevalence of Psychological Problems Amongst Iranian Immigrant Children and Adolescents In UK

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Objective: This study was designed to estimate prevalence rates of psychological problems in immigrant Iranian children in the UK and to evaluate the associated characteristics.

Methods: A group of 244 children and adolescents, 111 boys and 133 girls between the ages 6 to 15 was selected. The children were categorised into groups with different psychological problems by their teachers on the Teacher's Report Form (TRF). Also, the parents and The children completed the Child Behaviour Checklist (CBCL) and the Youth Self-Report (YSR) for the ages 11 to 15 years, respectively.

Results: Two-way ANOVAs using gender and age groups as factors showed that there were significant effects of gender in these subscales. Attention problems ($p<0.001$), delinquent behaviour ($p<0.001$), aggressive behaviour ($p<0.01$), externalising ($p<0.001$) and total problems ($p<0.02$). Two-way ANOVAs using age-group and gender as factors showed that there were no significant effects of age in the eight subscales of the CBCL; although a trend toward significance was observed for the withdrawn subscale. The interactions between gender and age for all subscales were not significant.

Conclusion: The results show that the level of psychological problems in this group is as high as their counterparts in Iran and Achenbach's US normative samples, if not higher. This might result from immigration stressors and the pressure of bilingual education.

Keywords:

child, England, Immigration, Iran, Psychological problems

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European countries have started to develop policies that would link immigration to health care policies. In the "Health for All" strategy, there are six areas where health policies and programs should take the needs of immigrants into consideration explicitly:

1) communication and understanding, 2) mother and child care, 3) health indicators among migrants, 4) occupational health, 5) violence, and 6) control of infectious diseases.

To improve the health status of immigrant families, host countries need to put ethnic policies high on the public health agenda. In addition to providing adequate health services for immigrants, there is a crucial need for training health professionals to make them capable of understanding perspectives that differ from their own ethnic orientation, so that they can provide adequate and effective responses (1).

Immigration and psychological disorders

Many studies have investigated characteristics of immigrant children in different domains including child and family backgrounds, socio-economic status, cultural settings, parent-child relationships and socio psychiatric problems. In general, these studies have shown different results; some have shown that immigrant children live in poorer conditions and show more social and psychiatric problems than non-immigrant children (2, 3). In the

epidemiological study of children aged 6 to 17, parents completed BCL. A subgroup of 399 parents was interviewed with the DISC. The mean syndrome scale scores in the various sex-age groups were in the lower range of several international studies using the CBCL. Effect analyses revealed sex to be more important than nationality (indigenous vs. immigrant) and age. All effects had to be considered as being minor. Convergence between syndrome scales of the CBCL and interview-derived DSM-III-R diagnoses was favourable for three major groups of disorders (4).

Niederhauser (1989) showed that culture is an important key to health care and compliance for children (5). In a recent study, it was found that immigrant young people with sociopsychiatric problems were more likely to live with parents who belong to a lower socioeconomic level with a somewhat less traditional cultural background. In addition, they concluded that the parents of these children tend to use physical punishment rather than verbal reasoning (3). Corporal punishment was common among immigrants in Greece (6). The absence of a father in the family had a negative effect on academic attainment for both immigrant and non-immigrant children (7). In contrast, Munroe-Blum et al. (1989) reported that immigrant children showed academic performance similar to non-immigrant children (8). In a study on Jewish children, poor academic performance was found (9). A study on Vietnamese refugees,

Table 1- Mean CBCL subscales, internalising, externalising and total problems scores in the pilot Study

Factors	Boys 4-11	Boys 12-18	Girls 4-11	Girls 12-18	F gender	F age
	Mean (SD)					
Withdrawn	2.26 (2.50)	4.00 (2.83)	2.87 (3.12)	3.79 (3.43)	0.75	0.04
Somatic-Complaints	0.77 (1.26)	1.57 (1.99)	1.23 (1.99)	1.53 (2.50)	0.61	0.18
Anxious-Depressed	3.79 (3.35)	7.14 (4.77)	5.20 (3.89)	6.22 (5.02)	0.78	0.02
Social Problems	2.37 (2.34)	2.54 (1.85)	2.15 (2.03)	2.56 (2.12)	0.82	0.54
Thought Problems	1.13 (1.91)	1.64 (1.65)	0.69 (1.44)	0.63 (1.01)	0.03	0.50
Attention Problems	4.77 (4.46)	4.86 (3.82)	3.00 (2.68)	4.16 (4.25)	0.12	0.43
Delinquent Behaviour	2.48 (2.32)	3.00 (2.08)	1.77 (1.98)	2.16 (1.64)	0.07	0.30
Aggressive Behaviour	8.77 (5.18)	11.50 (6.97)	7.44 (7.41)	7.95 (6.84)	0.08	0.25
Internalising	6.45 (5.20)	12.71 (8.65)	8.77 (6.87)	11.21 (9.41)	0.79	0.01
Externalising	11.26 (7.06)	14.50 (8.53)	9.21 (9.03)	10.11 (8.20)	0.07	0.24
Total problems	31.52 (19.70)	38.21 (19.02)	28.67 (19.92)	33.58 (23.78)	0.39	0.19

reported the presence of traumatic backgrounds such as being assaulted and witnessing problems, more immigrant children showed poor self-esteem, significantly higher maladjustment and problems with alcohol and drugs (3). More psychiatric disorders including conduct and emotional problems were found in an immigrant sample of school-aged children and adolescents who had returned to northern Finland from Sweden (7).

Since immigrant children appear to show more social problems than their non-immigrant peers, it is important that researchers present a clear definition of the term immigrant and its overlap with similar terms such as minority and refugee (8). In a review by Munroe-Blum et al. (1989), the use of the term immigrant corresponded to a set of very heterogeneous situations. For example, a child could be referred to as 'immigrant' if he/she was either born outside the country, or lived in a non-English speaking family, or had one foreign-born parent whose native language was not English. Also, the definition of immigrant status was not specified at all in some studies.

Causes of Immigration

Mass immigration is not a new phenomenon. Modern communication and transportation has made it possible for people to travel faster and further than ever before. There are significant differences between contemporary migration and that of yesterday. The Plan of action produced by the 1994 International Conference on Population in Cairo estimated the number of migrants to be 125 million world wide (1). The number of migrants is not the only cause of concern. New patterns and categories of migrants, which give the strong feeling that the problem is getting out of control, can also be a source of worry. This presents a challenge, which urgently asks for response and action on various levels including health and social services (1).

Preliminary work

We first conducted a pilot study in Iranian schools, including primary and high schools, in the UK.

A total of 105 immigrant Iranian children and adolescents between the ages of 4 and 18 years took part in the pilot study. The preparatory work involved a review of the literature on cross-cultural studies, preliminary study of acceptability and validity of scales, and obtaining parent's co-operation. In order to administer the questionnaires to be administered to the Iranian students, the questionnaires Child Behavioural Check List (CBCL), Teacher's Report Form (TRF) and Youth Self-Report (YSR) were translated to Persian by the researcher and then back-translated to the original language by five bilingual individuals in order to establish the reliability and validity of the translated instrument.

The pilot study was carried out in the Isle of Wight in March 1999. The organisers of an Iranian camp agreed to carry out the study. In a public session, the principle investigator talked about the project, and addressed the questions of parents who were interested in it. Three psychologists cooperated with the authors to explain the questionnaires (CBCL, YSR) to the parents and children. The CBCL and YSR questionnaires and a demographic scale were sent to the participants' residences. Parents and children were asked to fill in the questionnaires at a convenient time and to answer all the questions. Those who needed assistance with filling in the questionnaires were asked to report their needs through the office in order to receive help by the researchers. Data were analysed using the statistical package for the social sciences (SPSS-11).

The total number of children and adolescents was 105; all Iranian immigrants. There were 47 boys and 58 girls between the ages of 4 and 18 years, attending grades 1 to 10. The sample was divided into four groups; 31 boys aged 4-11, 16 boys aged 12-18, 39 girls aged 4-11 and 19

girls aged 12-18. The mean of eight problems subscales and internalising, externalising and total problems subscales of the four groups were compared using two way ANOVA, with the age group and gender as independent variables (see Table 1). In comparing boys and girls in the eight CBCL subscales, only the thought problem items were significant ($p = 0.03$), with thought problems being greater in boys than girls.

The mean scores of children (4-11) were lower than those for adolescents (12-18) on the following subscales: Withdrawn ($p = 0.04$), Anxious-depressed ($p = 0.02$), and Internalising ($p = 0.01$). This indicated that adolescents were more withdrawn, anxious-depressed and internalizing than younger children. Internal reliability of each subscale was calculated using Cronbach's alpha statistic. Three scales: delinquency, thought problems and social problems had alphas below 0.7, but all the others including the total scale score, were acceptable. The pilot study showed the acceptability of our CBCL Iranian version and the feasibility of our main study with this immigrant population. The main study was devised to examine the prevalence of psychological problems and of their causes in children whose families have emigrated from Iran to the UK. No such study had as yet been carried out.

Methods

Subjects

The total number of children and adolescents in the London and Manchester Iranian schools was 300. Eighty-seven percent of parents participated in the study and completed 261 CBCL, whereas 13% refused to fill the questionnaires. We excluded 17 children and adolescents from the sample, because their parents had failed to answer more than 8 items of their child's CBCL; these were all Iranian immigrants. The sample therefore comprised 244 children and adolescents; 111 boys and 133 girls between the ages of 6 and 15 years, attending grades 1 to 10.

After receiving approval for the study from the Ethical Committee of the Institute of Psychiatry, an information letter emphasising the confidentiality and the importance of the study was sent to the directors of the Iranian schools. They requested an appointment for further explanation of the study. We subsequently had three meetings with the director and staff to persuade them to cooperate with the project. Another session was also held for the parents of the students to explain the research and answer any queries they might have had. Then, the Consent Form was sent to the parents who had agreed to participate in the study.

Measures

The translation of the CBCL was submitted to Pr. Achenbach who gave us permission to proceed. The following measures were administered:

A) Parental rating scale

1- Child Behaviour Check List (CBCL, Achenbach, 1991)

2- Demographic Questionnaire B) Teacher's Report Form (TRF, Achenbach, 1991)

C) Youth Self-Report (YSR, Achenbach, 1991)

Analyses

Data were analysed with SPSS-11. The statistical analyses relied on test-retest for variables. A p -value of 0.05 was retained as the level of statistical significance.

The mean of 8 problems subscales, internalising, externalising and total problems subscales of the four groups were compared using two way ANOVA, with age group and gender as independent variables.

Results

The sample comprised four groups; boys (6-11), boys (12-15), girls (6-11) and girls (12-15) (Table 2).

The causes of immigration in the Iranian families can be explained as follows:

1) Business: Some Iranian immigrant families had a good socio-economic status in Iran. This group included families who were resident in the UK before the revolution in Iran. In addition, there were other families who had arrived in the UK after the revolution or after the war between Iran and Iraq. The main cause of their migration to the UK was to maintain their business and economic status.

2) Mission: This group comprises families who have come to the UK, as staff members of Iranian organizations (e.g. oil companies) for a period of time.

3) Education: Some of the families had come to the UK so that either their children or they could continue their studies at universities in the UK.

4) Refuge: This group included families who had also arrived after the war.

Table 2- Demographic characteristics of the sample

	Boys 6-11 N=77	Boys 12-15 N=34	Girls 6-11 N=86	Girls 12-15 N=47
	Mean (SD)			
Age	8.87 (1.70)	13.52 (1.77)	8.66 (1.75)	13.40 (1.07)
Education (years)	2.76 (1.49)	6.76 (2.06)	2.63 (1.61)	7.12 (1.67)
Immigration (years)	3.03 (0.97)	2.66 (1.34)	3.39 (3.78)	3.63 (2.58)
Number of children (in the family)	2.35 (0.55)	2.62 (0.71)	2.00 (0.78)	2.77 (1.00)
Child position	1.82 (0.66)	1.25 (0.44)	1.63 (0.80)	1.66 (0.68)

The main reason for the migration of these families, was escaping the perils of war (e.g., bombardment, air-raid, occupation of their cities by Iraq etc.).

5) Treatment: Some families had come for the treatment of their patients and had preferred to stay in the UK after the completion of the treatment course. The mean of eight problems subscales, internalising, externalising and total problems subscales of the four groups were compared using two way ANOVAs, with age group and sex as

Table 3- Mean CBCL subscales, internalising, externalising and total problems scores: main sample

Factors	Boys 6-11	Boys 12-15	Girls 6-11	Girls 12-15	P	P	P
	Mean (SD)				Age	Sex	Interaction
Withdrawn	2.38 (2.24)	2.49 (2.60)	2.50 (2.65)	3.26 (3.31)	0.06	0.58	0.79
Somatic complaints	0.84 (1.31)	1.38 (1.86)	1.00 (1.72)	1.06 (1.98)	0.23	0.99	0.30
Anxious-Depressed	5.75 (4.26)	5.68 (4.30)	4.77 (3.50)	5.15 (4.44)	0.74	0.11	0.68
Social problems	2.61 (2.19)	2.12 (1.92)	2.21 (1.80)	2.13 (2.11)	0.34	0.30	0.45
Thought problems	1.04 (1.42)	1.09 (1.44)	0.73 (1.36)	1.04 (1.63)	0.31	0.23	0.51
Attention problems	5.35 (3.68)	4.56 (3.87)	3.23 (2.69)	3.74 (3.60)	0.90	0.001*	0.16
Delinquent behaviour	2.88 (2.66)	2.32 (1.77)	1.78 (1.87)	2.11 (2.13)	0.84	0.001*	0.14
Aggressive behaviour	8.77 (5.61)	7.71(6.53)	6.59 (6.29)	6.15 (6.47)	0.39	0.01*	0.71
Internalising	8.13 (5.73)	8.62(6.32)	7.27 (5.45)	8.40 (6.93)	0.29	0.39	0.69
Externalising	11.65 (7.80)	10.03 (7.81)	8.37 (7.67)	8.26 (7.77)	0.46	0.001*	0.48
Total problems	34.48 (18.04)	31.26 (19.66)	27.10 (17.76)	29.57 (22.68)	0.99	0.02 *	0.28

independent variables (Table 3).

Gender effects

Two-way ANOVAs using gender and age groups as factors showed that there were significant effects of gender on these subscales: Attention problems [$df=(1,240)$, $F=15.18$, $p<0.001$], delinquent behaviour [$df=(1,240)$, $F=8.37$, $p<0.001$], aggressive behaviour [$df=(1, 2406)$, $F=6.19$, $p<0.01$], externalising [$df=(1,240)$, $F=7.80$, $p< 0.001$] and total problems [$df=(1, 240)$, $F=5.01$, $p< 0.02$] (Table 3). In all comparisons, mean scores were significantly higher in boys than in girls, the effect being more marked for attention problems.

Age effects

Two-way ANOVAs using age-group and gender as factors showed that there was no significant effects of age in the eight subscales of the CBCL. There was a trend for the withdrawn subscale (table 3); interestingly, a comparable trend was found in our pilot study on that CBCL subscale.

Interaction between gender and age

The interactions between gender and age for all subscales were not significant (Table 3).

Reliability

Internal reliability of each subscale was calculated using Cronbach's alpha. The coefficients were withdrawn:0.73, somatic complaints, 0.67; anxious-depressed, 0.77; social problems, 0.57; thought problems, 0.63; attention problems,0.76; delinquency, 0.52; aggressive behaviour, 0.83; internalising, 0.82; externalising, 0.85; and total problems, 0.93. Comparison between the children of Iranian immigrants, immigrants from other countries, and non-immigrant Iranian children We then compared the

mean CBCL scores of the immigrant Iranian children in the UK to those of both non-immigrant Iranian children and to children from other countries (Table 4).

Discussion

The results show that immigrants have a level of psychological problems that is in several respects higher than the mean levels for their counterparts in Tehran (11) and also higher than those described by Achenbach (1991). We had hypothesised that such differences might result from the pressure of education, because most of these pupils were studying their lessons in two languages. They studied in English from Mondays to Fridays at English schools, and studied in Persian at weekends. On the other hand, this could have resulted from a higher degree of psychopathology or from the Iranian parents setting higher standards than in Achenbach's samples. This high level of problems seems to apply particularly to teenagers

Stress associated with immigration

As mentioned earlier, immigrant families have migrated to the UK for different reasons. In general, immigrant families seem to suffer from different stressors. First of all, immigrant families have to cope with different cultures, languages, environment and food, and also with losing their relatives and friends and o on. The immigrant individual should have enough physical and psychological capacities in order to become sufficiently adjusted and adapted to the new situations. Those who could not adjust themselves are at higher risk for different psychosocial problems. However, the above-mentioned changes and the new situation possibly put

Table 4- overall mean and mean scores on eight syndromes of BCL in 9 cultures compared with immigrant Iranian children in the UK

Item	Internalising group				Externalising group			
	Withdrawn	Somatic Complaints	Anxious/ Depressed	Social problems	Thought problems	Attention problem	Delinquent Behaviour	Aggressive Behaviour
Over all Mean	2.1	1.1	2.9	1.4	0.4	2.7	1.4	5.8
Standard Deviation from overall mean	2.3	1.7	3.8	1.9	1.0	2.9	1.9	5.2
Cultures								
1. Australia	1.4	1.5	2.9	1.2	0.5	2.4	1.4	5.1
2. Germany	1.4	0.6	2.0	0.9	0.2	2.1	1.4	4.4
3. Israel	1.7	0.7	3.1	1.0	0.4	2.2	1.0	5.8
4. Jamaica	2.9	1.5	2.9	1.4	0.4	2.7	1.4	5.8
5. The Netherlands	1.8	0.9	2.7	1.2	0.4	3.1	1.4	5.2
6. Puerto Rico	4.0	2.1	4.8	2.9	0.7	4.6	2.0	9.0
7. Sweden	1.1	0.8	1.8	0.6	0.1	1.6	1.1	4.5
8. Thailand	2.5	0.7	2.6	1.6	0.5	2.7	1.4	5.3
9. United States	2.1	1.0	2.4	1.7	0.5	2.9	1.5	6.8
Iran	2.1	0.8	3.9	2.4	1.1	3.5	2.0	4.9
UK Iranian Immigrant	2.6	1.0	5.2	2.3	0.9	4.1	2.2	7.3

young children and adolescents at a higher risk than the adults (12).

Migration may increase the degree of poverty, inter-racial conflicts, parental psychological distress, family instability, unemployment and intergenerational conflict in immigrant families. Furthermore, socializing skills such as the ability to speak the host country's language and having social confidence are the main determinants for establishing positive relationships with the community, which are less likely to be present in immigrant families (13). Socializing abilities of the young children from a wide diversity of families with different cultures are quite different from the children who live in their homeland. Establishing positive social relationships is more difficult for children after puberty, which is due to their inability to acquire the new language without an accent (13, 14). Persons, who start living in previously unfamiliar situations, may gradually develop problems such as depression, anxiety and other psychosocial problems after a period of time.

Furthermore, immigrant families with negative experiences, who have witnessed violence in their homeland, or have had to leave their countries because of war, show more psychological problems than others (12, 13). Some of these families have already experienced psychiatric problems such as PTSD in their homeland.

In a comparative study on Dutch and Turkish children, versions of the Child Behaviour Checklist (CBCL) were used for children and adolescents aged 4-18 years.

Parents reported behavioural problems in 3,127 Turkish children in Ankara, 2,081 Dutch children, and 833 Turkish immigrant children living in The Netherlands. Immigrant children scored higher than Dutch children on 6 of the 11 CBCL scales, most markedly on the anxious-depressed subscale. Immigrant children scored higher than children in Ankara on 5 CBCL scales. However, these differences were much smaller than those found between immigrant and Dutch children. Furthermore, the total problem scores of immigrant children did not differ from those of the children in Ankara. Turkish immigrant children have very similar patterns of parent-reported behavioural problems to children living in Turkey, although both groups of Turkish children showed higher levels of parent-reported behavioural problems than Dutch children. The higher scores for Turkish children on the anxious-depressed subscale as compared with their Dutch counterparts may be explained by cultural differences in parental perception of children's behavioural problems, the threshold for reporting them, and/or by cultural differences in the prevalence of problems, for instance as the result of cross cultural differences in child-rearing practice (15).

A questionnaire has been developed that is acceptable to a group of Iranian residents in the UK. It was found that boys had more attention problems and delinquent and aggressive behaviour than girls did. This might be due to intensive interaction of boys with the western cultural environment, which is not seen in girls. It can also be due

to the higher rate of attention problems and delinquent and aggressive behaviour in boys compared to girls as suggested by other CBCL studies. It should be also added that boys are more externalising than girls.

The adolescents were more withdrawn than children ($p = 0.06$). This might be due to the critical period of adolescence, which is associated with greater problems, along with the immigration factors, which were mentioned earlier. We compared the overall mean scores on eight subscales of the CBCL for 11,887 children from 9 cultures with immigrant Iranian children in the UK. The purpose of this evaluation was to compare syndromes of parent-reported problems for children in 9 cultures as well as Iranian immigrants. CBCL was analyzed for 13,697 children and adolescents, ages 6 through 17 years, from samples from Australia, Belgium, China, Germany, Greece, Palestine, Jamaica, the Netherlands, Puerto Rico, Sweden, Thailand, the United States, Iran and Iranian immigrant in the UK. The comparison of children from nine different cultures gave medium effect sizes for cross cultural variations for social problems and small effect sizes for somatic complaints, anxiety/ depression, thought problems, attention problems, delinquent behaviour and aggressive behaviour. Scores of children and adolescents from Puerto Rico were the highest, whereas Swedish children and adolescents had the lowest scores on almost all syndromes. Overall, mean and mean scores on eight syndromes of the Child Behaviour Checklist for 11,887 children, ages 6-17 years, from 9 cultures were obtained and compared with immigrant Iranian children, aged between 6 to 15 in the UK (Table 4).

Conclusion

The results show that Iranian immigrant children and adolescents have a level of psychological problems that is at least as high if not higher than the mean levels of their counterparts in the south of Tehran, and also higher than those described by Achenbach in 1991 and their UK counterparts. We had hypothesised that such differences might result from the immigration stressors, high standardisation of their parents and the pressure of education on two subjects; English subjects during weeks and Persian subjects at the weekends. On the other hand, this might result from more psychopathology or from Iranian parents setting higher standards.

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