



Queensland University of Technology
Brisbane Australia

This is the author's version of a work that was submitted/accepted for publication in the following source:

[Khawaja, Nigar G.](#), [McCarthy, Rebecca](#), Vivienne, Braddock, & [Dunne, Michael P.](#)

(2013)

Characteristics of culturally and linguistically diverse mental health clients.
Advances in Mental Health, 11(2), pp. 169-184.

This file was downloaded from: <https://eprints.qut.edu.au/57920/>

© Copyright 2013 eContent Management

Notice: *Changes introduced as a result of publishing processes such as copy-editing and formatting may not be reflected in this document. For a definitive version of this work, please refer to the published source:*

<http://amh.e-contentmanagement.com/archives/vol/11/issue/2/article/5020/characteristics-of-culturally-and-linguistically>

Characteristics of Culturally and Linguistically Diverse Mental Health Clients

Nigar G. Khawaja¹, Rebecca McCarthy², Vivienne Braddock³ and Michael Dunne²

¹School of Psychology & Counselling & ²School of Public Health,
Queensland University of Technology, Australia

³Queensland Transcultural Mental Health Centre, Australia

Running head: CALD Clients

Correspondence concerning this article should be addressed to Dr. Nigar G. Khawaja,
Senior Lecturer, School of Psychology & Counselling, Queensland University of Technology,
Victoria Park Rd., Kelvin Grove, p/c 4059, Australia. Fax: 61 7 3138 0486, Email:
n.khawaja@qut.edu.au

Abstract

The present study examined Queensland Transcultural Mental Health Centre (QTMHC) client characteristics in order to provide a better understanding for development of future health service delivery models. Archived data that was collected for 1499 clients over two years period (2007-2009) was analysed using descriptive statistics and Chi squares. The results indicated that clients were referred from a range of sources and were generally adults. There were more women than men, who sought services. At least half of the clients had language barriers and relied on bilingual workers. Most frequently expressed mental health issues were mood disorder symptoms, followed by symptoms of schizophrenia and psychosis and anxiety. Acculturation strains and stressors were described as the most common psychosocial issues. Mental health and psychosocial issues differed for age, gender and world regions from which the CALD clients originated. The findings provided an understanding of clients who seek services at QTMHC. Various ways in which transcultural services and data bases can be further improved are discussed.

Word count: 163

Key words: Mental health, migrants, refugees and health services

Introduction

Australia is one of the world's most culturally diverse nations, with more than 200 ethnic communities (Australian Bureau of Statistics (ABS), 2009). It is a country based on migration. Nearly 45 % of people living in Australia were either born overseas or have at least one parent born overseas (ABS), 2009). Although the majority of migrants living in Australia are from English-speaking countries (the UK, Ireland and New Zealand), the rates of culturally and linguistically diverse groups moving to Australia have increased with migration and refugee intake (Department of Immigration and Citizenship, 2012a). During the last three decades a number of people from various parts of Asia, Middle East, Africa and Easter Europe have settled in Australia (Department of Immigration and Citizenship, 2012b). The term 'cultural and linguistic diversity' (CALD) is used to describe people who were either born overseas, or have parents who were born overseas, speak a language other than English, and identify with a specific religion and / or culture. Migrants and refugees, who arrive to Australia from non-English speaking countries, as well as their children who are born in Australia fall into this category (Victorian Government Department of Human Services, 2004). Throughout this paper the term CALD will be used to represent migrants, refugees and/or their children.

Australia is a popular choice of migration (Department of Foreign Affairs and Trade, 2008) due to the pull factors such as better occupational and educational pursuits and high quality of life (Furnham, 2010; Ponizovsky, Radomislensky, & Grinshpoon, 2009). Further, a small minority enters on humanitarian grounds (Australian Human Rights Commission, 2008; Department of Immigration and Citizenship, 2009) pushed out of their own country due to persecution, oppressive regimes and natural disasters (Arguin, Marano, & Freedman, 2009;

Furnham, 2010; Macpherson, Gushulak, & Macdonald, 2007). Exodus is common among the adults although sometimes they can be accompanied by children and elderly (Berry, 2010; Bhugra, 2004a). Those who migrate are first generation migrants and their children born in Australia are considered second generation of the CALD population. First generation migrants differ from second generation migrants on the basis of their duration of stay and the level of adaptation (Leao, Sundquist, Johansson, & Sundquist, 2009; Khawaja, 2008). Migration is a series of events over prolonged period of time influenced by a number of social and individual factors (Bhugra, 2004a,b). The process of migration is distinct where people choose to move for a variety of reasons and therefore not all migrants are likely to face similar experience before and after migration. These may include their reason for resettlement, pre- migration experiences, how long they plan to be in the country, individual and family expectations, available support mechanisms and many more (Akosile & Mutiga, 2009). The ability of a migrant to integrate into a host society is based on combined mental, emotional, physical, cultural, and social well-being (Berry, 2010). Absence of physical ill-health is not by itself sufficient for successful integration in a host society.

Psychosocial and Mental Health Problems Experienced by CALD population

People from ethnically diverse backgrounds encounter particular risk factors related to their experiences prior to and after entering the country of settlement (Bhugra, 2004a). Relocation can lead a loss of support, social network, roles and traditional values and a sense of being displaced and disempowered in a new country (Akhtar-Danesh & Landeen, 2007; Bhugra, 2004b; Pumariega, Rothe, & Pumariega, 2005). Resettlement in a new country requires major adaptation (Donnelly, 2002; Ek, Koironen, Raatikka, Järvelin, & Taanila, 2008).

The newly arrived undergo acculturation, which involves redefinition of identity, roles and value systems (Berry, 2010; Markovizky & Samid, 2008; Maydell-Stevens, Masgoret, & Ward, 2007; Safdar, Struthers, & van Oudenhoven, 2009; Sam & Berry, 2010). Acculturation is a complex process and can occur at varying degrees, which often leads to stress and strained interpersonal relations (Ek, et al., 2008). Even though the children and adolescents, being at a developmental phase, integrate in the new culture at a faster rate (Berry & Sabatier, 2010), they can encounter intergenerational conflicts with their parents, who are still holding on to the traditional values and belief systems (Pumariega, et al., 2005; Trujillo, 2008). Further, migrating during young age can expose individuals to a particular set of risks with long-ranging consequences for mental health in adulthood (Leu, Yen, Gansky, Walton, Adler, & Takeuchi. (2008). Older migrants, who are often isolated and lack cultural flexibility, are also risk (Gerst, Al-Ghatrif, Beard, Samper-Ternent, & Markides, 2010). These experiences may create psychosocial vulnerability and as a result mental health can be affected when migration related pressures are combined with other risk factors (Bhugra & Minas, 2007; Ek, et al., 2008).

Factors which may particularly impact the mental health of CALD migrants include: language barriers, social and economic disadvantage; insecurity of employment; difficulty accessing medical and social services; culture shock, subjection to degrees of racism; insecure housing and; lack of recognition of qualifications obtained in their country of origin (Bhugra, 2004a; Cantor-Graae & Selten, 2005; Coid et al., 2008; Dealberto, 2010; de Wit et al., 2008; Furnham, 2010; Levecque, Lodewyckx, & Bracke, 2009). According to World Health Organisation's (WHO) (2003) estimation more than 50 per cent of migrants worldwide have a mental health problem. These range from chronic mental disorders, such as depression,

anxiety, schizophrenia to trauma, which is more prominent in those who have fled persecution (WHO, 2003). Grief over terminated social and emotional links, loss of role, identity and position in a society and loss of tradition can aggravate depression and low self esteem in newly arrived migrants or refugees (Bhugra, 2007; Bhugra & Minas, 2007; Leu et al., 2008; Pumariega, et al., 2005).

Migrants who arrive at an earlier age have higher prevalence of mood dysfunction despite gains in subjective social status, education, and income (Leu et al., 2008; Schrier et al., 2010). High levels of anxiety are also reported in migrant children (Barrett, Sonderegger & Sonderegger, 2001; Diler & Avci, 2003) including those who migrated as a child and those who are second generation migrants (Nazroo, 1997). Further, migrants and refugees in particular, worry about kin back home and are anxious about settling in a new country (Nazroo, 1997). Similarly, higher rate of schizophrenia among migrant groups have been reported (Bhugra, 2005; Brown, 2011; Cantor-Graae & Selten, 2005; Coid, et al., 2008; Dealberto, 2010; Selten, Cantor-Graae, & Kahn, 2007; Swinnen & Selten, 2007). A recent study has shown that migrants from non-English backgrounds showed a high proportion of diagnosis with psychosis; a higher percentage admitted to acute inpatient units; they were more likely to be admitted involuntarily and the duration of their admissions were significantly longer (Stolk, Minas, & Klimidis, 2008a).

In Australia over a quarter of a million first generation adults from CALD backgrounds are estimated to experience some form of mental disorder in a 12 month period (Commonwealth Department of Health and Aged Care, 2004). National data shows that levels of mental illness may be higher in immigrant communities due to the stressors of pre-migration, migration and settlement (McDonald & Steel, 1997). Due to the dearth of

investigations there is no evidence that individuals from a particular part of the world are more vulnerable to emotional and mental health issue (Swinnen & Selten, 2007). Takeuchi et al, 2007 have argued that migrants from certain parts of the world are likely to be more vulnerable than others. Psychological distress is slightly higher (5.5%) among those who speak a language other than English compared to those adults (3.2%) who speak English (Commonwealth Department of Health and Aged Care, 2004). People from CALD background are likely to suffer from high rates of severe mental illnesses compared with people living in their country of origin because of under utilisation of mental health services (Blignault, Ponzio, Rong & Eisenbruch, (2008).

In spite of the presence of psychosocial and mental health issues the utilisation of mental health services are generally low among the CALD population, (Wu, Kviz, & Miller, 2009). Language barriers, financial constrains, lack of knowledge of services, and social stigmas and lack of appropriate culturally competent health service providers are reasons for low utilisation of mental health services (Whitley, Kirmayer, & Groleau, 2006).

Often traditional cultural beliefs and practices are not typically considered within mainstream health services and therefore are not perceived as culturally appropriate for CALD clients (Kirmayer, Weinfeld, Burgos, du Fort, Lasry, & Young, 2007; Stolk, et al., 2008a; Stolk, Minas, & Klimidis, 2008b; Wu et al., 2009). Many health professionals may also have a limited understanding of migration and its effects on mental health and wellbeing of CALD clients. It is important that mental health professionals understand the impact of migration and provide appropriate service to CALD populations (Hoschl, Ruiz, Casas, Musalek, Gaebel & Vavrusova, 2008).

Multicultural services in Australia

Migration and resettlement into a new environment is challenging for CALD individuals. For many, these challenges can lead to positive adaptations but, for some, it can be problematic (Bhugra, 2004b). In Australia, cultural diversity is an important component of the national standards for mental health service delivery. The Australian Transcultural Mental Health Network, a national organisation, was established in 1995 to provide a link between the various State and Territory mental health centres with the goal of improving mental health outcomes for Australia's diverse communities (Mental Health in Multicultural Australia (MMHA), 2010). This organisation's title changed to Multicultural Mental Health Australia in 2006 and it changed to Mental Health in Multicultural Australia (MHMA) in 2011. This organisation is funded by the Australian Federal Government's Department of Health and Aging. The national body established branches at the state level in the form of the transcultural centres, funded by the State Government's Health Departments.

In Queensland, the Queensland Transcultural Mental Health Centre (QTMHC) is a state-wide service working in partnership with the national body and other mainstream mental health services, as well as ethnic communities and other agencies to improve the quality, accessibility and appropriateness of services and to promote the mental health and wellbeing of culturally and linguistically diverse communities in Queensland (Queensland Health, 2010a). In Queensland, about 18 per cent of the population is born overseas and 8 per cent of Queensland residents speak a language other than English at home (ABS, 2009). QTMHC provides a number of services free of charge. It offers information, education, training, health promotion, resource development, policy and service development and transcultural clinical consultation service (Queensland Health, 2010a).

The transcultural clinical consultation service is a specialist mental health service aimed at addressing the mental health needs of the people from CALD backgrounds by

improving access for CALD communities to the range of mental health services and by building the capacity of mental health services to respond to the needs of individual CALD clients through assessment and consultation. The team consists of mental and allied health professionals. Psychiatrists, clinical nurses, psychologists, social workers and cultural consultants offer mental health services to CALD clients, who are self referred or referred by another agency. The clients have access to bilingual mental and allied health consultants covering over 97 language and cultural groups (Queensland Health, 2010a). This gives them an advantage of consulting a professional from their own cultural and / or language group. The multidisciplinary team offers assessment, psycho education, referral options and some psychological intervention to the clients. These professionals also offer advice and consultancy to the professional teams, who are treating CALD clients in other mainstream hospitals and clinical settings by using culturally appropriate assessments to clarify or confirm the diagnoses. They also provide cultural consultations and assistance in the development or review of individual care plans. Further, advice and information is also offered to consumers and / or families. This service is not a substitute for other services, but works in collaboration with mainstream mental health agencies and other service providers to ensure that services provided are comprehensive and culturally and linguistically appropriate. Approximately five hundred clients consult the clinical services at QTMHC each year (personal communication). The CALD clients, who seek support through QTMHC, typically vary in their duration of stay in Australia. Client data from clinical consultations at QTMHC have been accumulated and collated but has not been investigated systematically.

Goals of the study

Literature review indicates that people from CALD background encounter challenges, which can lead to psychosocial and mental health issues. Even though culturally sensitive and appropriate services have now been established, characteristics of CALD clients presenting to mental health services in Australia are under researched. The QTMHC has been offering clinical services to CALD population for over a decade. However, the characteristics of these clients presenting for clinical services have not been investigated. The overall aim of the study was to evaluate the archived data of CALD client collected by the centre in order to describe the characteristics of the clients with reference to their demographics, psychosocial and mental health issues. Such analyses are deemed vital for a more effective service delivery to CALD populations. It was hypothesised that the proportion of psychosocial and mental health issues would vary due to the demographic factors such as age, gender and country of origin.

Method

Participants

The participants for this study included 1499 clients who accessed QTMHC clinical services from January 2007 to December 2009. Sixty-eight countries were identified by these clients as their country of origin and they spoke 75 different types of languages. The other demographic details of these participants are presented in the results section.

Procedure

The QTMHC mental and allied health practitioners (psychologists, clinical nurses social workers, cultural consultants and psychiatrist), who offers clinical services at the centre, routinely enter client details using an electronic data base. The general and demographic information of the client including age; gender; marital status; country of origin; duration of

stay in Australia; languages spoken; presenting complaints and physical psychosocial issues; mental health issues; referral source; need for a bilingual worker and health district are entered in the data base. The archived data consisting of client information were de-identified for this project. Ethical clearance was obtained from University and the Hospital Ethics Units. Data were analysed using statistical methods . The analyses was carried out by the second author in consultation with the other authors.

Data Management and Reduction

The data were cleaned and coded for statistical analysis. During the data cleaning process, several limitations were identified in relation the design of the database and the manner in which data were collected. These limitations were the use of age categories instead of entering age in a continuous form; the infrequent use of the ‘Refugee < 2 Years’ field (in 84.7 per cent of cases there was no data entered for this field); allowing free text in the ‘country of origin’ field which resulted in invalid entries such as Africa, Pacific Islands, South America and had to be treated as missing data; and the lack of structure and meaning in the presenting complaints and physical psychosocial issues categories.

Four key variables (‘country of origin’, ‘presenting complaints’, ‘physical/psychosocial issue’ and ‘districts’) consisted of many categories and therefore decision was made to collapse these categories systematically to facilitate data analysis and to produce meaningful and informative results (McNabb, 2008; Weiner, 2003). The variable ‘country of origin’ was collapsed into a new variable labelled ‘world region of origin’. The world regions were based on the United Nations World Macro Regions and Components classification system (United Nations, 2010) which consists of six broad groups, Africa, Asia, Europe, Latin America, Northern America, and Oceania; each group was further divided into

subgroups (Eastern Africa, Northern Africa, Eastern Asia, South-central Asia, South-eastern Asia, Western Asia, Eastern Europe, Southern Europe, South America, Australia and New Zealand, Polynesia) that were used in the recorded variable and the analyses. Participants categorised as Australians and New Zealand consisted of the second generation CALD.

‘Presenting complaints’ was re-categorised using the DSM IV classification system and the new variable was titled ‘mental health issues’. Although the values in this variable do not represent a diagnosis, the structure of the DSM IV closely captured the range of variables displayed in the ‘presenting complaints’ list. To avoid confusion, symptom was used at the end of each DSM IV category label to signify that this value is a symptom and not a diagnosis.

The variable ‘physical/psychosocial issue’ was collapsed and recoded into categories - derived from the Health and Social Care Data Dictionary, a taxonomy devised by the Information Services Division of the National Health Services, Scotland (National Services Scotland, n.d.). This system effectively encapsulated the psychosocial values within the ‘physical/psychosocial issue’ variable; however there was no category for acculturation issues or physical issues; therefore these categories were added to the new variable labelled ‘psychosocial issues’. The ‘districts’ variable was sorted into fewer categories using the Queensland Health, Health Services District Map (Queensland Health, 2010b) for the purpose of analyses so that trends in the data would be easier to describe.

Results

Preliminary data analyses indicated that there were some missing data. Cases with \geq 10 percent of missing data were excluded from the analyses. When missing data was $<$ 10 percent, a separate ‘missing’ category was incorporated in the analyses. ‘Refugee $<$ 2 years’

had 84 % of cases as missing data; therefore this variable was excluded from the statistical analyses. Data analysis of the current research was conducted using SPSS version 18.0.

Descriptive Statistics

Descriptive statistics were used to examine the demographic characteristics of the clients of QTMHC during the three years period. More females (57.2%) than males (42.8 %) accessed the centre. An examination of the age categories indicated that adults (19-60 years) used the service most frequently (74.8%) followed by children and youth (17.4%) and aged (7.8%) clients. The proportions of females were greater than males in African (females: 57%; males: 43%), Asian (females: 59%; males: 41%) and American (females: 75%; males: 25%) world regions of origin. Although a range of mental health issues were reported (e.g. symptoms of dementia, delirium, somatoform, bereavement, adjustment and personality disorders adding up to 32 %), the three most common mental health issues clients experienced were mood disorder symptoms (28%), symptoms of schizophrenia and other psychotic disorders (25%), and anxiety symptoms (15%) respectively.

Clients living in Brisbane health districts (Metro-North and Metro-South) utilised QTMHC services more frequently than any other Queensland Health Service District. Females were more likely than males to self refer or be referred to the service by General Practitioners and Friends/Neighbours. QTMHC clients spoke a wide array of languages. Figure 1 outlines the ten most commonly spoken languages; after English. Arabic, Vietnamese and Mandarin were the 3 most frequently spoken languages. Figure 2 presents the ten most common countries of origin for QTMHC clients. This graph is based on the raw data before this variable was collapsed into world regions of origin.

(Please insert Figure 1 & 2 here)

Inferential Statistics

Keeping in view that all variables were categorical; chi square testing was considered as the most appropriate analysis to perform (Spatz, 2005). Chi square analysis was employed to associations in mental health issues and psychosocial issues as a result of demographic factors. Chi square test is used to evaluate the associations between two categorical variables when the following observations are met, independence of observational units and zero cells with an expected cell count of less than five (conservative rule). In the current study the second assumption was not met across all cross-tabulations for every variable under investigation. Therefore, it was necessary to refine the hypotheses to analyse what the data would allow. The number of clients was reduced considerably for some analyses. While it is usual to report the odds ratios for various outcomes, this was not possible as some variables contained more than two categories; standardised residuals were reported instead.

The proportion of mental health issues and age categories (n = 833).

In order to examine if the proportion of mental health issues varied across age categories, the symptoms of anxiety, mood disorders, and schizophrenia and other psychotic disorders were selected for the analyses. A statistically significant difference was found between age categories and the proportion of anxiety, mood disorders, and schizophrenia and other psychotic disorders ($\chi^2(4) = 15.13, p < .05$). Using a level of significance of 0.05, the critical value for a standardised residual is -1.96 and +1.96 (Field, 2005). For symptoms of schizophrenia and other psychotic disorders among children and youth the standardised residual was -2.1, indicating that there were fewer observations than expected for this association. For anxiety symptoms among children and youth the standardised residual was 2.7, indicating that there were more observations than expected for this relationship. Figure 3

shows the distribution of the symptoms for anxiety, mood and schizophrenia and other psychotic disorders for child and youth, adults and aged clients.

(Please insert Figure 3 here).

The proportion of psychosocial issues and age categories (n = 1316).

The proportion of clients with psychological, social, acculturation and physical issues was found to be different across age groups. There is sufficient statistical evidence to support this statement. ($\chi^2(8) = 20.43, p < .05$). Using standardised residuals, it was found that only psychological (standardised residual 2.3) and social issues (standardised residual -2.2) among children and youth were significant contributors to the chi-square relationship between age and psychological, social, acculturation and physical issues. Figure 4 shows the distribution of psychological, social, acculturation and physical issues for the age categories.

(Insert Figure 4 here)

The proportion of mental health issues and gender (n = 992).

The proportion of selected mental health issues significantly varied between male and female QTMHC clients ($\chi^2(2) = 24.15, p < .01$). Standardised residuals indicated that females accounted for a higher proportion of mood disorder symptoms (standardised residual 2.1) than would be expected but a smaller proportion of symptoms of schizophrenia and other psychotic issues (standardised residual -2.2). Standardised residuals for males indicated the reverse where males showed fewer mood disorder symptoms than expected (standardised residual -2.5) and higher than would be expected symptoms of schizophrenia and other psychotic issues (standardised residual 2.7). Figure 5 shows the frequency of various mental health issues for male and the female clients.

(Please insert Figure 5 here)

The proportion of psychosocial issues and gender (n = 1330).

As seen in Figure 6, females reported greater psychosocial stressors in all categories. The differences in psychosocial issues were not influenced by gender ($\chi^2(4) = 5.71, p = .22$).

(Please insert Figure 6 here)

The proportion of mental health issues and the world regions (n= 749).

The proportion of anxiety, mood disorders, and schizophrenia and other psychotic disorders symptoms significantly differed among the selected world regions of origin ($\chi^2(16) = 53.78, p < .01$). When converted to a z-score, standardized residuals were larger than the critical value (1.96), for symptoms of schizophrenia and other psychotic disorders in South-Eastern Asia (standardised residual, 2.5) and Australia and New Zealand (standardised residual, 2.3); for mood disorder symptoms in Eastern Asia (standardised residual, 2.5); and for anxiety symptoms in Western Asia (standardised residual, 2.1) and Southern Europe (standardised residual, 2.1). Figure 7 shows the frequency of anxiety, schizophrenia and other psychotic disorder symptoms for various world regions of origin.

(Please insert Figure 7 here)

The proportion of psychosocial issues and the world regions (n = 1093).

The variation in psychosocial issues were related to differences in world regions of origin ($\chi^2(20) = 39.03, p = 0.007$). Standardised residuals indicated that psychological issues in Southern Europe were lower than would be expected (standardised residual -2.2). Standardised residuals for psychological issues in Australia and New Zealand were higher

than would be expected (2.5). The distribution of psychological, social and acculturation issues across world regions of origin is shown in figure 8.

(Please insert Figure 8 here)

Discussion

The current study highlights the characteristics of the CALD clients who sought mental health services at QTMHC. Analyses of the archived data collected over three year period, shows that mood disorder symptoms were most frequently expressed by clients followed by anxious symptoms and symptoms of schizophrenia and psychosis. The most frequently reported psychosocial issue was acculturation. The proportions of mental health issue varied on the basis of age, gender and world regions, while the proportions of psychosocial issues varied due to the age and world regions but not gender.

Characteristics of CALD Mental Health Clients

The results indicate that most clients' were young adults. This outcome is consistent with previous findings, which indicates migration rate to be the highest amongst young adults, who are thus more likely at risk of developing mental disorders (Bhugra, 2004a). It is also possible that the centre is perceived as a place that offers services to adults. Majority of the clients were females. This finding is consistent with previous research, which shows that females are more likely to seek mental health services compared to men (Koopmans & Lamers, 2007). Although the clients were from many countries, the majority were from Asia and North Africa which corresponds with the migration trend in Australia in the last couple of decades (ABS, 2009). Approximately half of the clients were able to communicate in English language, while the rest experienced language barriers and had to rely on bilingual workers.

Clients were mainly residents of Brisbane city although there was a tendency for the Brisbane's south side residents to seek the services frequently as QTMHC is geographically located within south side of the city. The results also indicate that mental health services, such as hospitals, were main source for referrals to the centre. The clients were also referred by the family members as well as the community, government and educational institutions, which had collaborative associations with QTMH. This clearly indicates that these referral sources were aware of the transcultural services available for the CALD population.

Consistent with other research that examined mental health problems in migrants (Brown, 2011; Coid, et al., 2008; de Wit et al., 2008; Dealberto, 2010; Gerst, et al., 2010; Levecque, et al., 2009; Ponizovsky, et al., 2009; Schrier et al., 2010) the present study found that depression, anxiety, schizophrenia and other psychosis were most frequent symptoms expressed by QTMHC clients. Furthermore, the study also indicated that clients grieved over loss of social network, roles, identity, values, traditions and belief systems after migration, which resulted in some form of mental distress (Bhugra, 2007; Bhugra & Minas, 2007; Leu et al., 2008). Settlement in a new country can be challenging and therefore may cause anxiety and stress (Gersts et al,2010; Leu, et al., 2008; Swinnen & Selten, 2007). Those who failed to manage such challenges often experienced psychotic symptoms or mental stress (Bhugra, 2005; Selton et al., 2007).

Acculturation issues were the most prominent psychosocial issues experienced by the clients (Berry, 2010; Markovizky & Samid, 2008; Maydell-Stevens et al., 2007; Safdar, et al., 2009; Sam & Berry, 2010). Acculturation process can be a stressful event which often involves cultural adaptation and adjustment (Bhugra, 2004b). It is possible that many of the QTMHC clients experienced a sense of isolation. A number of clients also felt role and

interpersonal conflicts as a result of social and cultural adjustment to a new environment (Ek et al., 2008). The process of migration and acculturation, introduces risks to mental health and psychosocial well-being (Bhugra, 2004a; Bhugra, 2004b; Bhugra & Minas, 2007). QTMHC clients felt that dealing with financial and educational strains, unemployment, and lack of familiarity of Australian systems can cause anxiety and distress. Many indicated impairment of daily functioning, which often resulted in some form of mental disorder (Bhugra & Minas, 2007; Pumariega et al, 2005; Trujillo, 2008) as diagnosed by clinicians at QTMHC).

Mental health and psychosocial issues, age, gender and world regions of origin

The study examined variations among the proportions of mental health and psychosocial issues influenced by age, gender and the clients' world regions of origin. While examining the mental health issues and age of the clients, current analyses indicate that children and adolescents appear to experience more anxiety and psychosocial issues than expected. This finding is consistent with earlier studies (Barrett et al., 2001; Diler & Avci, 2003; Nazroo, 1997) indicating that factors such as loss of extended family members, changes in cultural traditions and practices, and identity and intergenerational conflicts arising from social and cultural expectations of the host society are possible explanations of high levels of anxiety and psychosocial issues in children and young adolescents . It is important to note that the study does not depict elderly clients manifesting mental health problems, which is probably due to small number of older people in the study sample (7.3 per cent). Further, studies have shown that older migrants access formal services at even lower rate than the already low rate seen in migrant populations and would tend to rely on cultural and traditional treatments (Diwan, 2008).

An investigation of psychosocial issues across age indicates that acculturation related stress is a key factor observed in all the three age categories. Intergenerational conflict could be seen as contributing to acculturation stress among clients from various age categories (Leu, et al., 2008). Children and youth were found to have less social issues but were more likely to experience psychological issues. Leu et al. (2008) reported that migrating during childhood, adolescence, or early adulthood can expose individuals to a particular set of risks with long-ranging consequences for mental health in adulthood.

Differences in the proportion of mental health and psychosocial issues for male and female clients were also evaluated. Although the clients experienced similar types of psychosocial issues, females reported a higher incidence of such difficulties. There was a significant gender difference for the prevalence of mood disorder symptoms. More females compared to males reported mood disorder symptoms. The study shows higher than expected levels for symptoms of schizophrenia and other psychosis for male clients. However, this finding is contrary to previous studies which found no relationship between gender and schizophrenia (Coid et al., 2008). Moreover, in the broader population no consistent gender differences in prevalence is reported for schizophrenia. On the other hand, it is likely that male clients may experience poorer premorbid psychosocial development and functioning thus increasing their vulnerability to psychoses from migration related stressors.

There were significant differences for symptoms of specific mental health disorders across world regions of origin. The present study found higher than expected levels for symptoms of mood disorders in clients from Eastern Asia. This is in accordance with Takeuchi, et al. (2007) findings. Elevated levels of anxiety were found in clients from

South-Eastern Asia and Eastern Asia. Several countries within both of these world regions are in conflict or have a recent history of hostility. As the study was unable to distinguish between voluntary and involuntary migration status due to inconsistencies in the database, it is possible that a proportion of QTMHC clients from these regions may have migrated to Australia under humanitarian visa or as asylum seekers and could have presented with some post traumatic stress disorder (Steel, Frommer, & Silove, 2004). Standardised residuals for world region of origin and schizophrenia and other psychosis indicate higher than expected levels for South-eastern Asia and second generation migrants born in Australia and New Zealand. As South-eastern Asia consists of a number of developing countries (AusAID, 2009), previous studies have shown that migrants from developing countries are at greater risks of schizophrenia compared to migrants from developed countries (Brown, 2011; Cantor-Graae, & Selten, 2005). Therefore, it is possible that a move from an underdeveloped to a developed country, and the associated resettlement pressures could have increased the chances of a psychotic breakdown. A higher frequency of schizophrenia and other psychotic symptoms in the second generation CALD (categorised as Australian and New Zealand) clients is consistent with past findings (Brown, 2011; Cantor-Graae & Selten, 2005). Second generation of migrants from CALD backgrounds have shown to be exposed to chronic stresses created by poverty, marginalisation and discrimination (Brown, 2011). Further, compared to first generation migrants, second generation migrants may feel insecure about their identity and would perceive as not belonging to either their own culture or that of the host society. Many may also be in conflict with the traditional values of their parents causing intergenerational conflicts resulting in stress (Dealberto, 2010; Leao et al., 2009; Selten, et al., 2007).

Implications

The current study has clinical implications for mental health care of the CALD population. It reveals the significance of establishing more support for adult clients as well as female clients. Specific culturally sensitive and appropriate interventions and preventative programs are required to address mood, anxiety and psychotic disorders among the ethnically diverse population. As acculturation difficulties have emerged as a major cause of seeking professional health, it is pivotal to develop more programs for addressing these issues in all age ranges. Keeping in view that a low number of children and elderly are consulting transcultural services, there is a need disseminate information about the services of QTMHC among these groups through community leaders and educational institutions. Need analyses are required with elderly and youth to understand these groups' issues and perceived barriers toward the services and how QTMHC can better respond to their needs. There is also a need for QTMHC to work more closely with child and youth mental health services and older person's mental health services to better meet the cultural needs of these groups. Overall, innovative programs that are also culturally sensitive and appropriate are required to promote the acculturation of CALD populations and the Australian community. Further, it is important to advertise and advocate acculturation interventions and programs targeting migrants and refugees to the ethnic communities and other referring sources such as the hospitals, GPs, refugee clinics, migrant & refugee organisations. The findings also indicate the need to improve the bicultural and bilingual services for CALD population using QTMHC services. Occurrence of specific mental health issues in clients from certain parts of the world would provide valuable information for developing more effective and targeted programs of specific CALD groups. This means having tailored interventions that are culturally sensitive and competent. Finally, it is not only the newly arrived who are vulnerable, participants, who formed the second generation also revealed their own challenges and therefore need further

attention.

The study highlights the importance of effective data collection procedures and systematic information collection system for clients at QTMHC. An accurate client profile will provide valuable data required for planning and development of mental health interventions and services. It is important when dealing with culturally and diversity groups of people, that the complexity of CALD clients need to be taken into account when collecting data. For example, along with demographic information, it is important to enquire about the CALD clients' ethnicity and cultural identity and visa status.

Limitations and future directions

This study has certain limitations. The multiple caveats within the structure of the database did not allow for a more detailed analysis and therefore caution should be exercised when interpreting the results. Reliable, well structured and clinically relevant data bases are essential for mental health service planning and delivery. Broad categories of age were problematic. Preferably age should be entered as a continuous variable. Data base did not specify the refugee status of the clients, therefore it was not possible to compares those who entered on humanitarian grounds with those who migrated wilfully. Future data needs to be collected systematically with appropriate variables to explore important differences between and within CALD populations. The duration of stay in Australia is also important and should be more detailed than the less or more than two years cut-off used in the current database. Some information on variability between clients is lost when data were collapsed. Grouping people from different countries limits the capacity to detect differences between countries. The method of age categorisation in the database was particularly problematic. The variable, mental health issues, was based on "presenting complaints" categorised using Western-

oriented psychological symptoms and disorders. The validity of this process is questionable taking into account the criticism of using Western based diagnostic systems with non-Western populations (Marsella & Yamanda, 2010). This could have underestimated certain mental health problems, unique to specific non-Western cultures and not identified by DSM-IV. Future studies require a more culturally appropriate assessment and diagnoses. Future investigations should also focus on evaluating and mapping the experience of cultural adjustment over time to determine patterns of acculturation and profiles mediated by culture of origin, age, and gender.

Conclusion

The current study, despite the problems with the database, contributed to a better and informed understanding of transcultural mental health practice. It has provided information about the characteristics of the CALD clients at QTMHC as well their psychosocial and mental health status. The study has contributed significantly in relation to increasing awareness of quality data collection protocols and systems. It has informed the service providers about data collection processes and collecting thorough information profiles of their clients. Further, it has increased the health services' awareness of the significance of quality data collection systems. Having a better understanding of client characteristics would be useful for developing and implementing culturally appropriate interventions tailored to meet the needs of specific CALD clients. Collecting the right data and following appropriate procedures to maintain a quality database, will provide foundations on which to build successful prevention programs and appropriate service delivery initiatives.

References

- Akhtar-Danesh, N., & Landeen, J. (2007). Relation between depression and sociodemographic factors. *International Journal of Mental Health Systems, 1*(4). doi: 10.1186/1752-4458-1-4
- Akosile., A & Mutiga., N. (2009). BRiTA Futures- Adults in Families A Program Framework to Promote Mental Well Being in Adults in Families from Culturally and Linguistically Diverse Backgrounds. Queensland: Queensland Transcultural Mental Health Centre.
- Arguin, P. M., Marano, N., & Freedman, D. O. (2009). Globally mobile populations and the spread of emerging pathogens. *Emerging Infectious Diseases, 15*(11), 1713-1714.
- Australian Bureau of Statistics (ABS). (2009). 3412.0 - Migration, Australia, 2007-08
Retrieved April 8, 2010, from
[http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/3412.0Main%20Features
22007-08?opendocument&tabname=Summary&prodno=3412.0&issue=2007-
08&num=&view=](http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/3412.0Main%20Features%202007-08?opendocument&tabname=Summary&prodno=3412.0&issue=2007-08&num=&view=)
- Australian Human Rights Commission. (2008). 2008 Face the Facts: Some Questions and Answers about Indigenous Peoples, Migrants and Refugees and Asylum Seekers. Sydney: Australian Human Rights Commission.
- AusAID. (2009). List of Developing Countries - As Declared By The Minister For Foreign Affairs Retrieved September, 17, 2010, from
http://www.ausaid.gov.au/ngos/devel_list.cfm
- Barrett, P. M., Sonderegger, R., & Sonderegger, N. L. (2001). Evaluation of an Anxiety-prevention and Positive-coping Program (FRIENDS) for Children and Adolescents of Non-English-speaking Background. *Behaviour Change, 18*(2), 78-91.

- Berry, J.W. (2010). Intercultural relations and acculturation in Pacific region. *Journal of Pacific Rim Psychology*, 4, 95-102.
- Berry, J.W., & Sabatier, C. (2010). Acculturation, discrimination, and adaptation among second generation immigrant youth in Montreal and Paris. *International Journal of Intercultural Relations*, 34(3), 191–207.
- Bhugra, D. (2004a). Migration and mental health. *Acta Psychiatrica Scandinavica*, 109, 243-258.
- Bhugra, D. (2004b). Migration, distress and cultural identity. *British Medical Bulletin*, 69, 129-141. doi: 10.1093/bmb/ldh007
- Bhugra, D. (2005). The global prevalence of schizophrenia. *Plos Medicine*, 2(5), 372-373. doi: 10.1371/journal.pmed.0020151
- Bhugra, D. (2007). Cultural identity, cultural congruity and distress. *European Psychiatry*, 22, S60-S60.
- Bhugra, D., & Minas, H. (2007). Mental health and global movement of people. *The Lancet*, 370(9593), 1109-1111. doi: Doi: 10.1016/s0140-6736(07)61249-5
- Blignault, I., Ponzio, V., Rong, Y., & Eisenbruch, M. (2008). A Qualitative Study of Barriers to Mental Health Services Utilisation Among Migrants From Mainland China in South-East Sydney. *International Journal of Social Psychiatry*, 54(2), 180-190. doi: 10.1177/0020764007085872
- Brown, A. S. (2011). The environment and susceptibility to schizophrenia. *Progress in Neurobiology*.93 (1): 23-58 doi: 10.1016/j.pneurobio.2010.09.003
- Cantor-Graae, E., & Selten, J.-P. (2005). Schizophrenia and Migration: A Meta-Analysis and Review. *Am J Psychiatry*, 162(1), 12-24. doi: 10.1176/appi.ajp.162.1.12

Coid, J. W., Kirkbride, J. B., Barker, D., Cowden, F., Stamps, R., Yang, M., et al. (2008).

Raised Incidence Rates of All Psychoses Among Migrant Groups: Findings From the East London First Episode Psychosis Study. *Arch Gen Psychiatry*, 65(11), 1250-1258. doi: 10.1001/archpsyc.65.11.1250

Commonwealth Department of Health and Aged Care. (2004). Framework for the

Implementation of the National Mental Health Plan 2003-2008 in Multicultural Australia. Canberra.

Department of Immigration and Citizenship (2009). Fact Sheet 21 - Managing the Migration

Program Retrieved April 1, 2010, from <http://www.immi.gov.au/media/fact-sheets/21managing.htm>

Department of Immigration and Citizenship. (2012a). Fact Sheet 8 - Abolition of the 'White Australia' Policy Retrieved February 17, 2013, from

<http://www.immi.gov.au/media/fact-sheets/08abolition.htm>

Department of Immigration and Citizenship. (2012b). Fact Sheet 21 - Managing the Migration

Program Retrieved february 17, 2013, from <http://www.immi.gov.au/media/fact-sheets/21managing.htm>

Department of Foreign Affairs and Trade. (2008). Australia: a culturally diverse society

Retrieved April 6, 2010, from http://www.dfat.gov.au/facts/culturally_diverse.html

de Wit, M., Tuinebreijer, W., Dekker, J., Beekman, A.-J., Gorissen, W., Schrier, A., et al.

(2008). Depressive and anxiety disorders in different ethnic groups. *Social Psychiatry and Psychiatric Epidemiology*, 43(11), 905-912. doi: 10.1007/s00127-008-0382-5

Dealberto, M. J. (2010). Ethnic origin and increased risk for schizophrenia in immigrants to

countries of recent and longstanding immigration. *Acta Psychiatrica Scandinavica*, 121(5), 325-339. doi: 10.1111/j.1600-0447.2009.01535.x

- Diler, R. S., & Avci, A. (2003). Emotional and behavioral problems in migrant children. *Swiss Medical Weekly*, 133(1-2), 16-21.
- Diwan, S. (2008). Limited English Proficiency, Social Network Characteristics, and Depressive Symptoms Among Older Immigrants. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 63(3), S184-S191.
- Donnelly, T. T. (2002). Contextual analysis of coping: implications for immigrants' mental health care. *Issues in Mental Health Nursing*, 23(7), 715-732.
- Ek, E., Koiranen, M., Raatikka, V.P., Järvelin, M.R., & Taanila, A. (2008). Psychosocial factors as mediators between migration and subjective well-being among young Finnish adults. *Social Science & Medicine*, 66(7), 1545-1556. doi: 10.1016/j.socscimed.2007.12.018
- Field, A. (2005). *Discovering statistics using SPSS*. London: SAGE Publication Inc.
- Furnham, A. (2010). Culture shock: literature review, personal statements and relevance for the South Pacific. *Journal of Pacific Rim Psychology*, 4, 87-94.
- Gerst, K., Al-Ghatrif, M., Beard, H. A., Samper-Ternent, R., & Markides, K. S. (2010). High depressive symptomatology among older community-dwelling Mexican Americans: The impact of immigration. *Aging & Mental Health*, 14(3), 347 - 354.
- Hoschl, C., Ruiz, P., Casas, M., Musalek, M., Gaebel, W., & Vavrusova, L. (2008). The impact of migration on mental health and mental illness. *European Psychiatry*, 23(Supplement 2), S42-S42. doi: 10.1016/j.eurpsy.2008.01.154
- Khawaja, N. (2008). An Investigation of the Factor Structure and Psychometric Properties of the COPE Scale With a Muslim Migrant Population in Australia. *Journal of Muslim Mental Health*, 3:177-191.

- Kirmayer, L. J., Weinfeld, M., Burgos, G., du Fort, G. G., Lasry, J.-C., & Young, A. (2007). Use of health care service for psychological distress by immigrants in an urban multicultural milieu. *The Canadian Journal of Psychiatry / La Revue canadienne de psychiatrie*, *52*(5), 295-304.
- Koopmans, G. T., & Lamers, L. M. (2007). Gender and health care utilization: The role of mental distress and help-seeking propensity. *Social Science & Medicine*, *64*(6), 1216-1230.
- Leao, T. S., Sundquist, J., Johansson, S.-E., & Sundquist, K. (2009). The influence of age at migration and length of residence on self-rated health among Swedish immigrants: a cross-sectional study. [Article]. *Ethnicity & Health*, *14*(1), 93-105. doi: 10.1080/13557850802345973
- Leu, J., Yen, I. H., Gansky, S. A., Walton, E., Adler, N. E., & Takeuchi, D. T. (2008). The association between subjective social status and mental health among Asian immigrants: Investigating the influence of age at immigration. *Social Science & Medicine*, *66*(5), 1152-1164. doi: 10.1016/j.socscimed.2007.11.028
- Levecque, K., Lodewyckx, I., & Bracke, P. (2009). Psychological distress, depression and generalised anxiety in Turkish and Moroccan immigrants in Belgium. *Social Psychiatry and Psychiatric Epidemiology*, *44*(3), 188-197. doi: 10.1007/s00127-008-0431-0
- Macpherson, D. W., Gushulak, B. D., & Macdonald, L. (2007). Health and foreign policy: influences of migration and population mobility. *Bulletin Of The World Health Organization*, *85*(3), 200-206.
- Markovizky, G., & Samid, Y. (2008). The Process of Immigrant Adjustment. *Journal of Cross-Cultural Psychology*, *39*(6), 782-798.

- Marsella, A., J. & Yamada, M. (2010). Culture and Psychopathology: Foundations, issues, directions. *Journal of Pacific Rim Psychology, 4*, 103-115.
- Maydell-Stevens, E., Masgoret, A.-M., & Ward, T. (2007). Problems of Psychological and Sociocultural Adaptation among Russian-Speaking Immigrants in New Zealand. *Social Policy Journal of New Zealand*(30), 178-198.
- McDonald, B., & Steel, Z. (1997). *Immigrants and Mental Health: An epidemiological analysis*. Sydney.
- McNabb, D. E. (2008). *Research methods in public administration and nonprofit management: quantitative and qualitative approaches* (2nd ed.). Armonk, New York: M.E. Sharpe, Inc.
- Mental Health in Multicultural Australia (MHiMA) (2011), Retrieved on October 12, 2012 from <http://www.mhima.org.au/>
- Multicultural Mental Health Australia (MMHA). (2010). Response to NACMH Discussion Paper: A Mentally Healthy Future for all Australians. Sydney.
- National Services Scotland. (n.d.). Health and Social Care Data Dictionary: Psychosocial Issues. Retrieved August 23, 2011 from <http://www.datadictionaryadmin.scot.nhs.uk/isddd/26249.html>
- Nazroo, J. Y. (1997). *Ethnicity and mental health : findings from a national community survey*. London: Policy Studies Institute.
- Ponizovsky, A. M., Radomislensky, I., & Grinshpoon, A. (2009). Psychological distress and its demographic associations in an immigrant population: findings from the Israeli National Health Survey. *Australian and New Zealand Journal of Psychiatry, 43*(1), 68-75.

- Pumariega, A. J., Rothe, E., & Pumariega, J. B. (2005). Mental Health of Immigrants and Refugees. *Community Mental Health Journal, 41*(5), 581. doi: 10.1007/s10597-005-6363-1
- Queensland Health. (2010a). Queensland Transcultural Mental Health Centre Services and Programs Retrieved April 6, 2010, from <http://www.health.qld.gov.au/pahospital/qtmhc/services.asp>
- Queensland Health (2010b). Queensland Health District Maps. Retrieved August 23, 2011 from <http://www.health.qld.gov.au/maps/>
- Safdar, S., Struthers, W., & van Oudenhoven, J. P. (2009). Acculturation of Iranians in the United States, the United Kingdom, and the Netherlands. *Journal of Cross-Cultural Psychology, 40*(3), 468-491.
- Sam, D. L., & Berry, J. W. (2010). Acculturation. *Perspectives on Psychological Science, 5*(4), 472-481.
- Schrier, A., de Wit, M., Rijmen, F., Tuinebreijer, W., Verhoeff, A., Kupka, R., et al. (2010). Similarity in depressive symptom profile in a population-based study of migrants in the Netherlands. *Social Psychiatry and Psychiatric Epidemiology, 45*(10), 941-951. doi: 10.1007/s00127-009-0135-0
- Selten, J. P., Cantor-Graae, E., & Kahn, R. S. (2007). Migration and schizophrenia. *Curr Opin Psychiatry, 20*(2), 111-115. doi: 10.1097/YCO.0b013e328017f68e
- Spatz, C. (2005). *Basic Statistics: Tales of distributions* (8th ed.). Belmont, CA: Wadsworth/Thomas.
- Steel, Z., Frommer, N., & Silove, D. (2004). Part I - The mental health impacts of migration: the law and its effects - Failing to understand: refugee determination and the

traumatized applicant. *International Journal of Law and Psychiatry*, 27(6), 511-528.

doi: 10.1016/j.ijlp.2004.08.006

Stolk, Y., Minas, I. H., & Klimidis, S. (2008a). *Access to mental health services in Victoria: A focus on ethnic communities*. Melbourne: Victorian Transcultural Psychiatry Unit.

Stolk, Y., Minas, I. H., & Klimidis, S. (2008b). Trends in access and equity in mental health service delivery to ethnic communities in Australia over a decade: 1995/96 to 2004/05. Melbourne: Victorian Transcultural Psychiatry Unit.

Swinnen, S. G. H. A., & Selten, J. P. (2007). Mood disorders and migration: Meta-analysis.

The British Journal of Psychiatry, 190(1), 6-10. doi: 10.1192/bjp.bp.105.020800

Takeuchi, D. T., Zane, N., Hong, S., Chae, D. H., Gong, F., Gee, G. C., et al. (2007).

Immigration-Related Factors and Mental Disorders Among Asian Americans. *Am J*

Public Health, 97(1), 84-90. doi: 10.2105/ajph.2006.088401

The World Health Organisation (WHO). (2003). *International Migration, Health and Human Rights*. Geneva.

Trujillo, M. (2008). Multicultural aspects of mental health. *Primary Psychiatry*, 15(4), 77-84.

United Nations (UN). (2010). Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings. Retrieved August 17, 2011 from <http://unstats.un.org/unsd/methods/m49/m49regin.htm#asia>

Victorian Government Department of Human Services. (2004). *Cultural and Linguistic Diversity (CALD) Strategy: Planning and delivering culturally appropriate supports for people with a disability, their families and carers*. Melbourne: Community and Individual Support Branch, Disability Services Division, Victorian Government Department of Human Services.

- Whitley, R., Kirmayer, L. J., & Groleau, D. (2006). Understanding Immigrants' Reluctance to Use Mental Health Services: A Qualitative Study From Montreal. *Canadian Journal of Psychiatry, 51*(4), 205-209.
- Wu, M. C., Kviz, F. J., & Miller, A. M. (2009). Identifying Individual and Contextual Barriers to Seeking Mental Health Services Among Korean American Immigrant Women. *Issues in Mental Health Nursing, 30*(2), 78-85. doi: 10.1080/01612840802595204

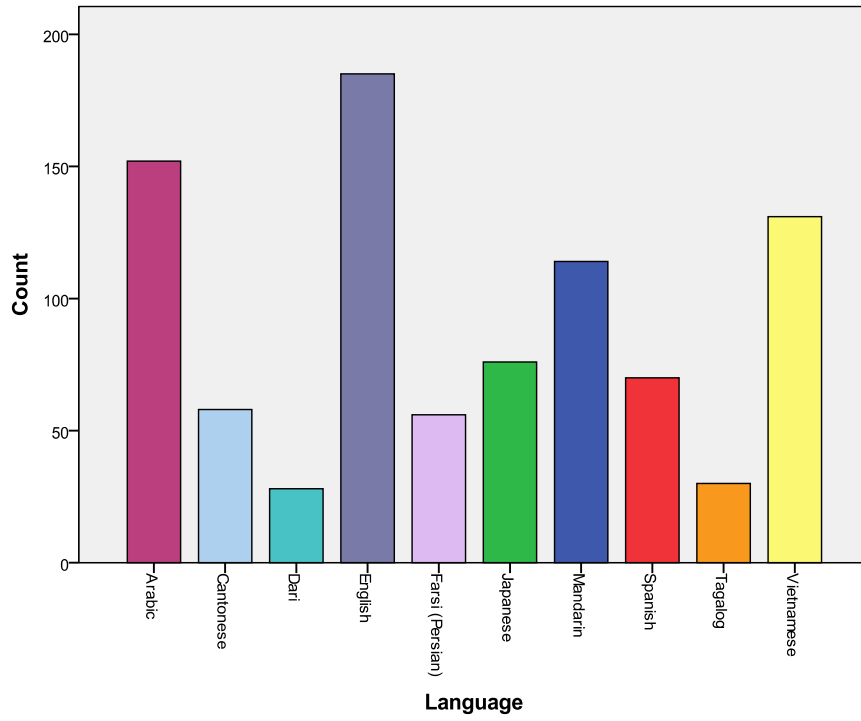


Figure 1. Ten Most Commonly Spoken Languages for QTMHC Clients

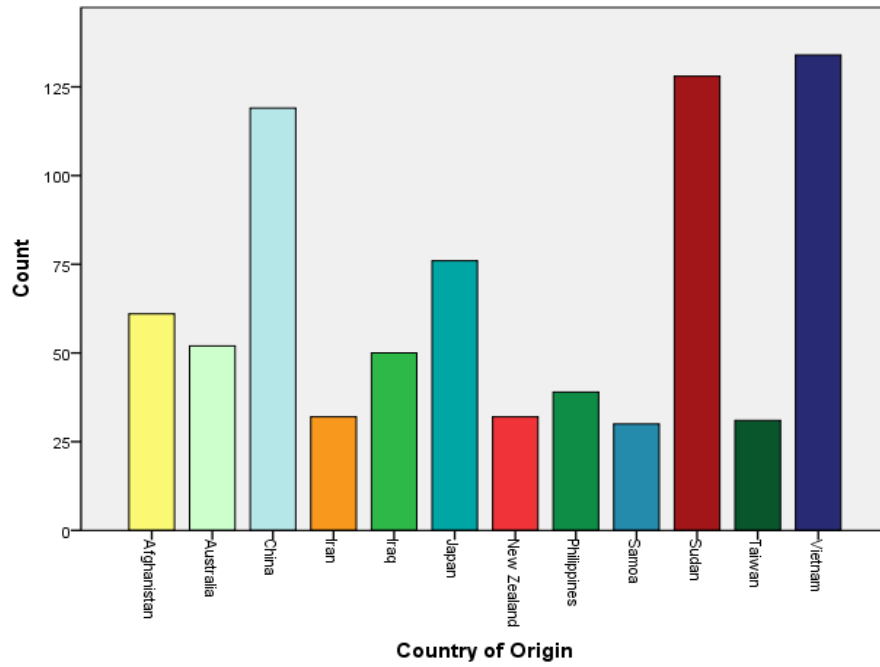


Figure 2. Ten Most Common Countries of Origin for QTMHC Clients

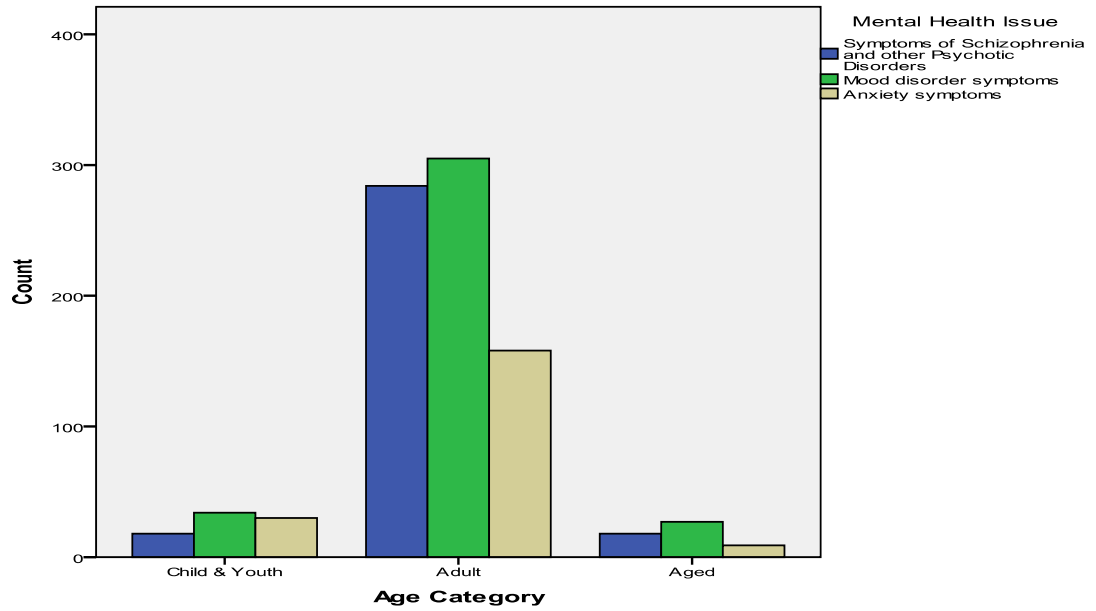


Figure 3. The frequency of the three most prevalent mental health issues by age categories.

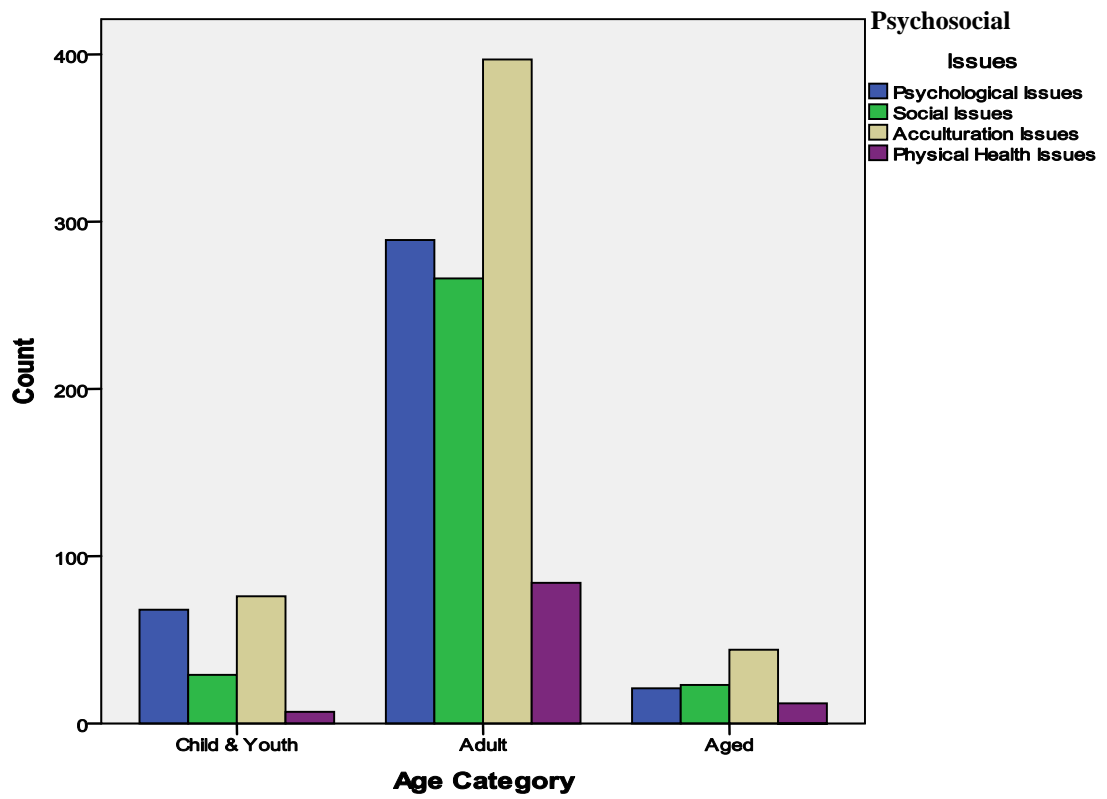


Figure 4. The frequency of psychological, social, acculturation and physical issues across age categories.

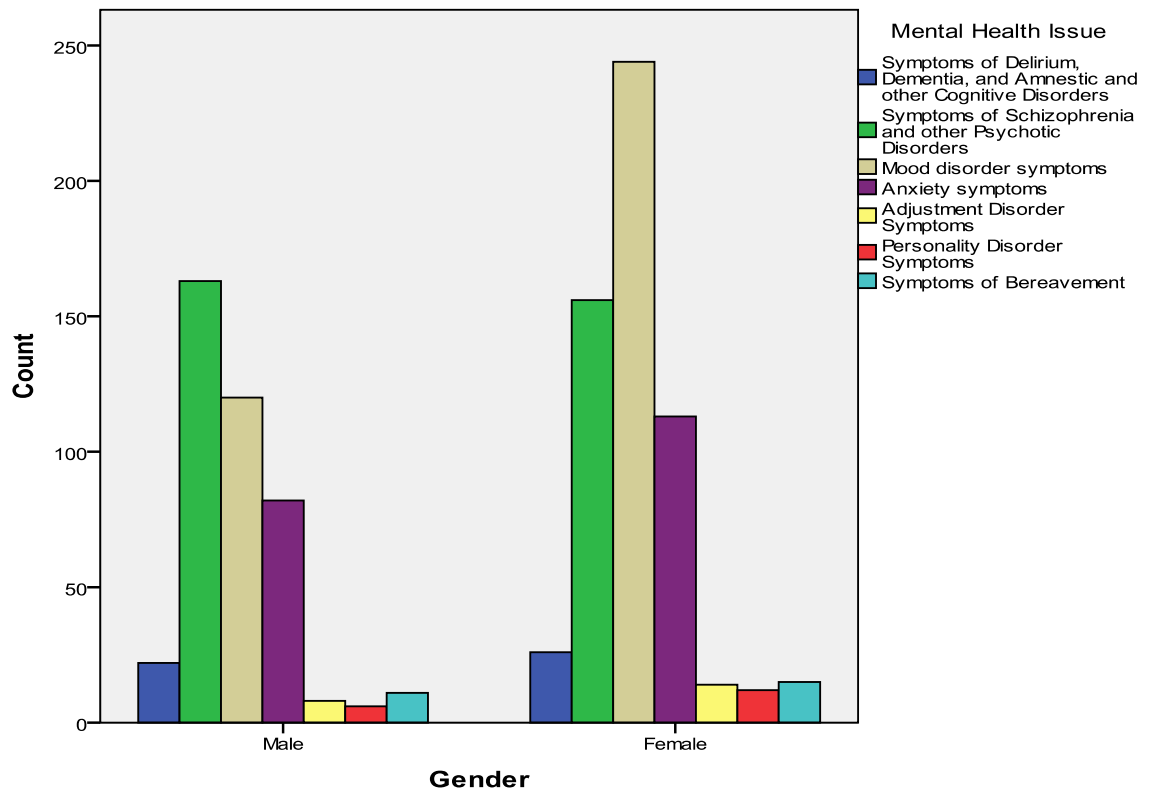


Figure 5. Graphical representation of the variation of various mental health issues between genders.

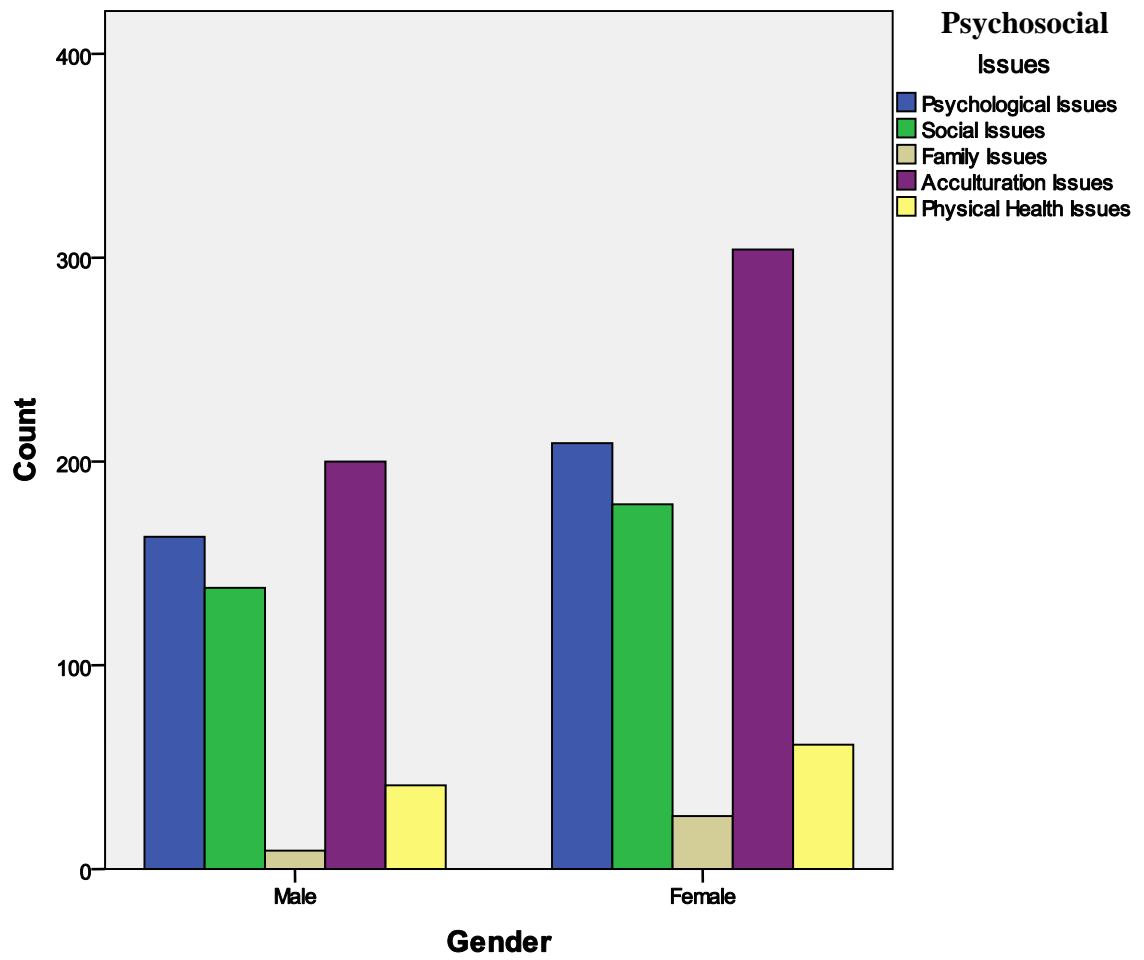


Figure 6 . Differing proportions of psychosocial issues between genders.

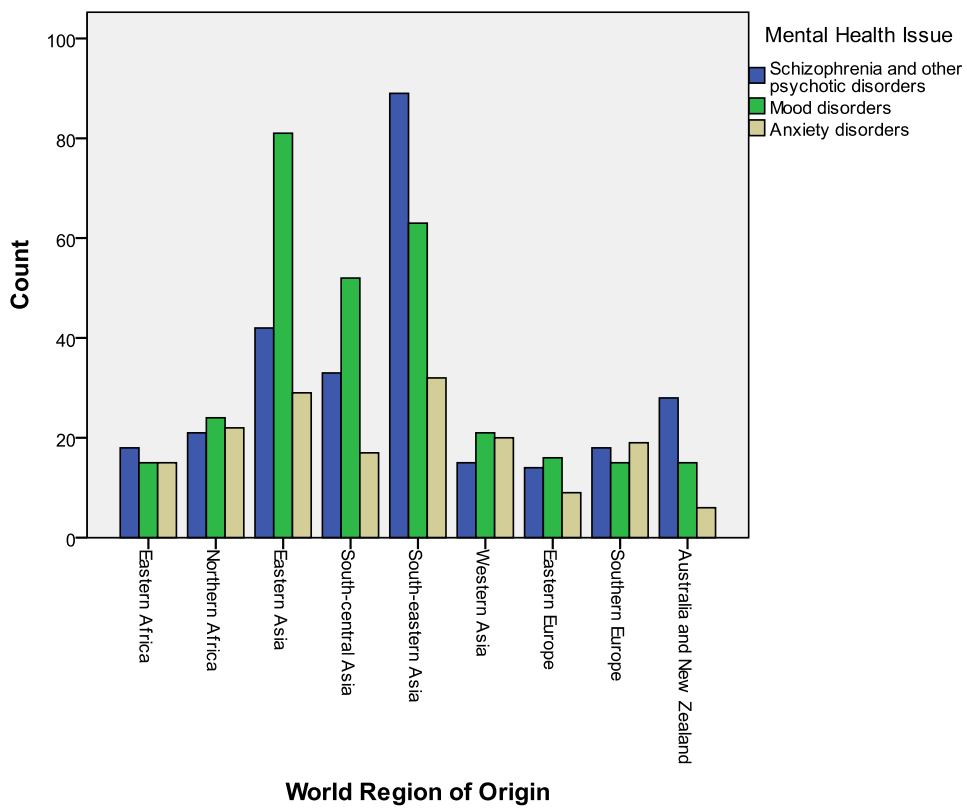


Figure 7. The distribution of selected mental health issues across world regions of origin.

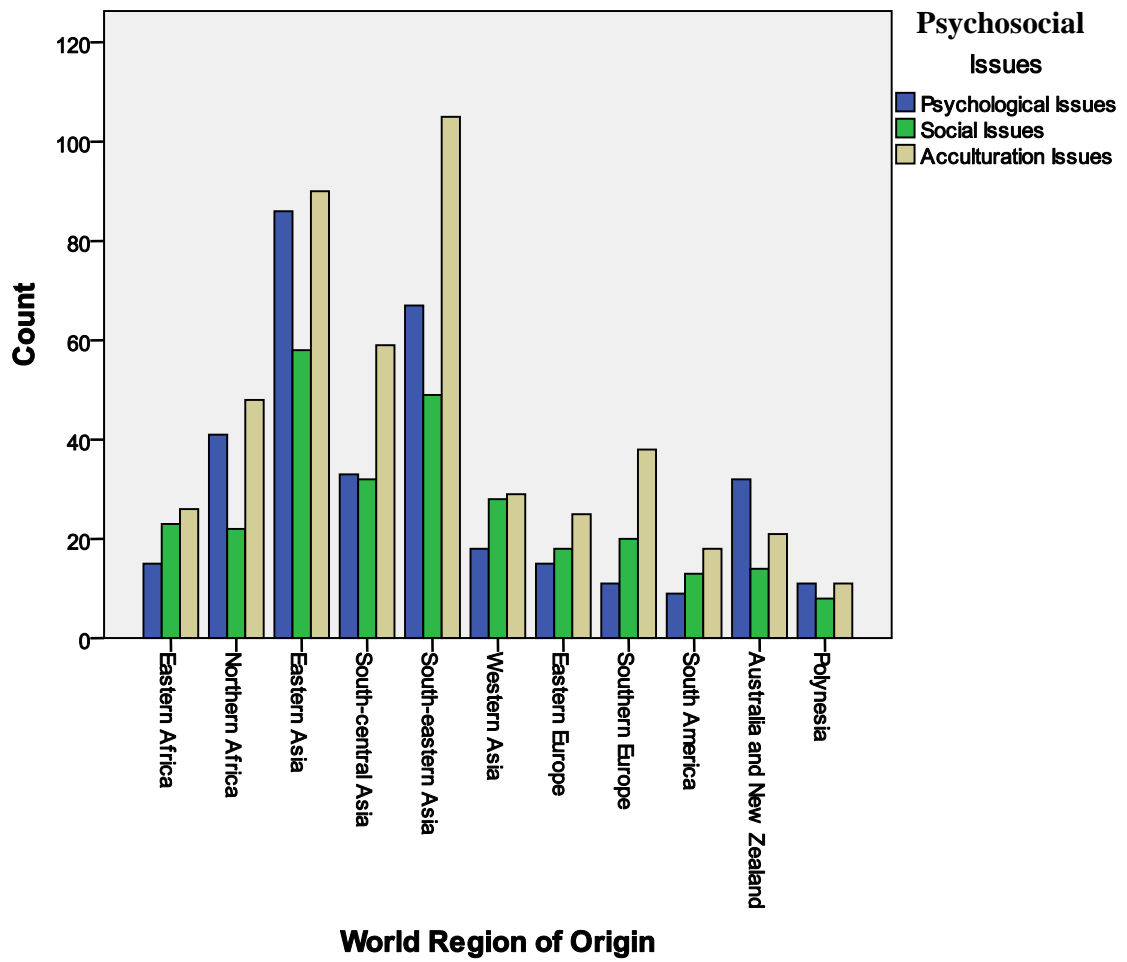


Figure 8. The distribution of psychological, social and acculturation issues across world regions of origin.