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Original Paper

# A focus on mental health issues in Chinese Canadians in Metro-Vancouver

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**Abstract.** *Despite the presence of significant need, traditional pathways to mental health care tend to be underutilized by ethno-cultural groups, including Chinese. Research has shown that Chinese immigrants use less overall health care services compared to other ethnic groups. We conducted a retrospective chart review on a group of 370 Chinese-Canadian patients from 2006 to 2009 seeking treatment at a large outpatient cross cultural psychiatric clinic in a Metro-Vancouver university teaching hospital. Data were collected on socio-demographic characteristics, diagnosis and treatment outcomes. The results were compared to a prior retrospective chart review conducted in 2001 of 370 Chinese-Canadian patients from 1998 to 2001 at the same clinic. Results showed that socio-demographic characteristics between the two cohorts shifted. There was an increase in the proportion of patients coming from mainland China between 2001 (30%) and 2009 (47%) as well as an increase in the proportion of women patients seen at the clinic (35% vs. 70%). Clinically, more patients were seen for major depressive episode (61%) in 2001 whereas the patients reviewed in 2009 were split between major depressive disorder recurrent (33%) and major depressive episode (34%). Similar to the findings in the 2001 cohort, female, mainland Chinese patients were more likely to drop-out of treatment or be lost-in-follow-up. Results are reflective of the general immigration trends in Canada to large metropolitan centers, and are discussed within the context understanding the importance of cultural and gender barriers for Chinese-Canadians, the need for appropriate service delivery and developing strategies to minimize premature drop-out from treatment.*

**Keywords:** Chinese-Canadians, Cross-cultural health, Mental health, Multicultural health, Barriers

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**INTRODUCTION** Immigrants to Canada from Western European countries have declined continually since the early 1960s. In contrast immigrants from Asia and South Asia have steadily risen since the early 1990s to the present with the largest visible minorities coming from China and India (BC Stats, 2006; Statistics Canada, 2001; Statistics Canada, 2005; Statistics Canada, 2006a; Statistics Canada, 2006b). Approximately 71% of all visible minorities settle in the largest metropolitan areas of Vancouver, Calgary, Toronto, and Montreal (Statistics Canada, 2010). According to data from the 2006 Canadian census, the largest ethnic minority group in Canada is Chinese, accounting for approximately 10% of the total population (Statistics Canada, 2001; Statistics Canada, 2005; Statistics Canada, 2006a; Statistics Canada, 2006b).

Mental illness is a known contributor to the burden of disease with major depressive disorder being one of the leading causes for disability and reduced quality of life (Murray & Lopez, 1996). Given the shift to more Asian, and specifically more Chinese, immigrants within Canada, it is vital to understand how they differ with respect to health care service utilization. This is particularly salient with respect to the provision of mental health care in serving the needs of different ethno-cultural groups (Sadavoy *et al*, 2004; Bhui *et al*, 2001; Kirmayer, 2001; Bhui *et al*, 2003; Lloyd, 1998; Bhui *et al*, 2007; Reitz, 1995). Multiple studies have shown that despite evidence of significant need, traditional pathways to mental

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health care are underutilized or ignored among different ethno-cultural groups including ethnic Chinese (Sadavoy *et al*, 2004; Wynaden *et al*, 2005; Whitley *et al*, 2006).
Indeed, research has shown that Chinese immigrants use less overall health care services than other ethnic groups (Chen *et al*, 2008; Chen *et al*, 2010; Chen & Kazanjian, 2005). Several explanatory factors have been hypothesized for the underutilization of mental health services, but the overall conclusion has been that mainstream mental health services in Canada are not designed for Chinese Canadians (Sadavoy *et al*, 2004; Kirmayer, 2001; Wynaden *et al*, 2005; Ganesan *et al*, 2009; Kim-Goh, 1993; Kirmayer & Young, 1998; Kirmayer, 2001; Kirmayer, 2005; Sattler, 1977).
The Canadian system of health care delivery is premised on equal access to services and treatments to all citizens, including mental health services. However the use of mental health services and corresponding diagnosis and treatment modalities by ethnic Chinese in Canada has not been well documented.
Therefore the aims of this study were to: (1) describe common demographic characteristics associated with mental health service use in ethnic Chinese, (2) examine different responses among culturally diverse Chinese subgroups to mental health services.

# METHOD

### Data cohort and collection

A retrospective chart review of 370 Chinese Canadians who attended the Vancouver General Hospital, Cross Cultural Psychiatry Outpatient Clinic between January 1, 2006 and December 31, 2009 was conducted. Patient socio-demographic variables (sex, age, employment status, language(s) spoken and country of origin) were recorded. Diagnosis was noted as were treatment modalities (medications, psychotherapy, both). Diagnosis was determined by the treating psychiatrist's standard clinical interview using DSM-IV criteria. These data were then compared to a previous cohort of 370 subjects collected at the same clinic between 1998 and 2001 (Mok *et al*, 2003).

### Cross cultural psychiatry outpatient clinic description

The Vancouver General Hospital, Cross-cultural Psychiatry Clinic was founded in 1998 and consists of psychiatrists, counselors, and social workers that provide culturally sensitive, language-specific assessment and treatment for mental health in over 13 different languages. The clinic provides full psychiatric assessment including diagnosis, medication, recommendations, and links cases with other resources available in Metro-Vancouver. It provides individual as well as group psychotherapy, case consultation and second opinion for community mental health services, as well as psycho-education for patients and families on their condition (Ganesan & Janze, 2005).

### Statistical analyses

Descriptive statistics were be used to describe the basic features of the data. Data were analyzed using non-parametric statistics with $p \leq 0.05$ as the significant level, two-tailed. All data will be entered and analyzed using SPSS version 17.0 (SPSS Inc., Chicago, IL, USA).

# RESULTS

### Socio-demographic characteristics

Demographic characteristics of the 2001 and 2009 cohorts can be seen in **Table 1**. The mean age was relatively unchanged between the 2001 and 2009 cohorts (42.5 vs. 43.2 years), however there were significantly more women in the 2009 cohort compared to the 2001 cohort (70% vs. 35%, $X^2$=88.79, p<.01). A higher proportion of patients were also divorced in the 2009 cohort versus the 2001 cohort (28% vs. 5%, $X^2$=90.6, p<.01). Employment was also higher in the 2009 cohort compared to the 2001 cohort (42% vs. 32%, $X^2$=49.0, p<.01).

There was also a reversal in immigration between 2001 and 2009, with the 2009 cohort consisting of more people from mainland China compared to Hong Kong (47% vs. 34%, $X^2$=27.9, p<.01). Similarly, there was an increase in the number of Mandarin Chinese speakers between the 2001 and 2009 cohorts (11% vs. 27%, $X^2$=78.4, p<.01).

**Table 1 Socio-demographic variables of 2001 & 2009 cohorts**

| *Characteristic* | *2001 (N=370)* | *2009 (N=370)* | *$X^2$ (p-value)* |
|---|---|---|---|
| **Age (range, mean)** | 10 – 89 (42.5 yrs) | 18 – 84 (43.2 yrs) | |
| **Sex (n, %)** | | | |
| Male | 240 (65) | 111 (30) | *88.79 (<.01)* |
| Female | 130 (35) | 259 (70) | |
| **Marital Status (n, %)** | | | *90.6 (<.01)* |
| Married | 222 (60) | 193 (52) | |
| Single | 110 (30) | 44 (12) | |
| Divorced-Separated | 19 (5) | 103 (28) | |
| Widowed | 19 (5) | 30 (8) | |
| **Employment Status (n, %)** | | | *49.0 (<.01)* |
| Employed | 118 (32) | 155 (42) | |
| Unemployed | 81 (22) | 56 (15) | |
| Retired | 44 (12) | 33 (9) | |
| Homemaker | 81 (22) | 63 (17) | |
| Leave of Absence | 0 (0) | 33 (9) | |
| Student | 44 (12) | 30 (8) | |
| **Place of Origin (n, %)** | | | *27.9 (<.01)* |
| Hong Kong | 185 (50) | 126 (34) | |
| Mainland China | 111 (30) | 174 (47) | |
| Taiwan | 41 (11) | 48 (13) | |
| Canadian Born | 33 (9) | 22 (6) | |
| **Language(s) Spoken (n, %)** | | | *78.4 (<.01)* |
| Cantonese | 218 (59) | 126 (34) | |

## Clinical Characteristics

As shown in **Table 2**, statistically significantly fewer patients were diagnosed with Major Depressive Episode (MDE) in 2009 compared to 2001 (34% vs. 61%), while the proportion of patients diagnosed with Major Depressive Disorder (MDD) rose substantially (6% vs. 33%) ($X^2$=110, p<.01). Adjustment Disorder (7% and 9%) and Anxiety Disorders (10% and 11%) were approximately the same in both cohorts. With respect to country of origin, language or gender, no statistically significant differences emerged with respect to diagnosis.

A statistically significantly larger proportion of the 2009 cohort had an Axis III (medical co-morbidity) diagnosis compared to the 2001 (58% vs. 20%, $X^2$=59.4, p<.01). No statistically significant differences emerged with respect to Axis III diagnosis and country of origin, language or gender.

The majority of patients received both psychotherapy and pharmacotherapy in both the 2001 (91%) and 2009 (96%) cohorts, while a very small proportion of patients received only psychotherapy in both cohorts (9% and 4%). However, this subtle shift was statistically significant ($X^2$=7.2, p<.01). As seen in Table 2, more patients were classified as fully recovered in the 2001 cohort compared to the 2009 cohort (38% vs. 27%, $X^2$=14.7, p<.01).

The proportion of patients lost to follow-up was virtually unchanged between the 2001 and 2009 cohorts (34% vs. 33%). No statistically significant differences emerged with respect to proportion of patients lost to follow-up and country of origin and language. However, a larger proportion of Mainland Chinese women (55%) were lost-to-follow-up compared to Hong Kong (26%), Taiwan (16%), and Canadian-born (4%) women ($X^2$=20.6, p<.05).

**Table 2 Clinical characteristics, treatment & uutcome of 2001 & 2009 cohorts**

| *Cohort* | *MDE* | *MDD* | *Psych* | *Anx D/O* | *Adj D/O* | *Other* | *$X^2$ (p-value)* |
|---|---|---|---|---|---|---|---|
| 2001 | 226 (61) | 22 (6) | 41 (11) | 37 (10) | 26 (7) | 18 (5) | 110 (<.01) |
| 2009 | 126 (34) | 122 (33) | 19 (5) | 41 (11) | 33 (9) | 29 (8) | |

| | *Axis III Diagnosis Present* | *Axis III Diagnosis Absent* | |
|---|---|---|---|
| 2001 | 75 (20) | 295 (80) | 59.4, p<.01 |
| 2009 | 215 (58) | 155 (42) | |

| | *Pharmacotherapy & Psychotherapy* | *Psychotherapy Only* | |
|---|---|---|---|
| 2001 | 337 (91) | 33 (9) | 7.2 (p<.01) |
| 2009 | 355 (96) | 15 (4) | |

| | *Full Recovery* | *Regular Follow-up* | *Lost to Follow-up* | |
|---|---|---|---|---|
| 2001 | 141 (38) | 104 (28) | 126 (34) | 14.7 (p<.01) |
| 2009 | 100 (27) | 148 (40) | 122 (33) | |

**DISCUSSION** The present study compared two retrospective chart reviews of patients seen at a large Cross-cultural outpatient psychiatric clinic in Metro-Vancouver between 1998 to 2001, and 2006 to 2009. There was a shift between the two cohorts on all socio-demographic variables measured including country of origin, language(s) spoken, marital status, employment status, and sex. First, there was a significant increase in the number of patients from Mainland China accessing mental health services, and a subsequent decrease in the number of patients from Hong Kong, as well as a parallel increase in the number of Mandarin Chinese speakers. This shift is understandable as it accurately reflects the increase in the number of Chinese immigrants entering large Canadian urban centres as described by Statistics Canada (Statistics Canada, 2005; Statistics Canada, 2010).

Next, there was a significant increase in the number of divorced and the number of female patients between the 2001 and 2009 cohorts. As with other socio-demographic factors, these increases parallel the current immigration patterns to Canadian metropolitan cities (Statistics Canada, 2005; Statistics Canada, 2010). However, it does not fully explain the sharp increase in both of these characteristics.

Other factors may be contributing to this increase. This may include the effects of stigma and notions of shame on help-seeking behaviour in Chinese males which may have reduced the number of men seeking help at the clinic (Wynaden *et al*, 2005). Conversely there may have been cultural limitations and gender barriers faced by women that may have negatively influenced their help-seeking behaviour and may have impacted loss-to-follow-up (Abe-Kim *et al*, 2002; Shin, 2002; Wynaden *et al*, 2005).

Although not presented as part of the results, we noted that more female patients had at least one or more Axis IV difficulties compared to male patients such as difficulty with partner, or children. This finding may be particularly relevant for women from Mainland China who had the highest lost-to-follow-up rates in both cohorts. Although it was not possible to establish baseline diagnosis for Mainland Chinese women prior to immigrating to Canada or entering the British Columbia medical system, this result suggests that traditional cultural barriers such as gender roles, other barriers such as belief in Traditional Chinese Medicine, lack of knowledge/ faith in Western psychotropic medicines and the practice of "psychotherapy" may be contributing factors to high drop-out rates (Chen *et al*, 2008; Chen & Kazanjian, 2005; Pearl *et al*, 1995; Wong *et al*, 1998; Mok & Yeh, 2007). Taking these

points into consideration in terms of service delivery, institutions should consider a mandate of retaining the services of a same sex, culturally and linguistically matched mental health clinician (Ganesan & Janze, 2005). In our own respective clinic, since 2010 we have retained the services of a female, half-time registered clinical councilor fluent in Mandarin and Cantonese who provides individual counseling and facilitates group psychotherapy.

There was an increase in the proportion of patients diagnosed with MDD in the 2009 cohort compared to the 2001 cohort, while other disorders such as anxiety and adjustment showed less variation. A possible reason for this shift in the former may be due to the first onset and chronicity of MDD (Eaton *et al*, 2008). Patients who were previously seen at the clinic by psychiatrists for MDE are sometimes re-referred by their family physicians for continuing treatment of recurrent episode(s) which may have accounted for this change.

There was also a higher proportion of patients with Axis III diagnoses in the 2009 cohort compared to the 2001 cohort. This may have been due to the higher proportion of patients originating from mainland China. Although immigrants to Canada must undergo a physical examination process prior to emigrating, immigrants from mainland China tend to have lower health status compared to Chinese from Hong Kong or Taiwan who tend to have similar health status (Sue, 1999; Yao, 2009).

The limitations to this study should be noted. Patients were referred through their family physicians. Thus the 2001 and 2009 cohort data may not have captured undiagnosed individuals utilizing alternate mental health services or treatment such as emergency departments, hospital inpatient units, community mental health teams, or hospital day programs. Consequently these findings cannot be generalized beyond the results presented in this paper. The data collected during these chart reviews consisted of descriptive data on the prevalence of clinical and socio-demographic factors of ethnic Chinese subgroups. Therefore, causal relationships between variables cannot be determined.

**CONCLUSION** The results of this comparison of two retrospective chart reviews provides an outline of the composition and clinical diagnoses of Chinese immigrants and their respective subgroups at a large Metropolitan Psychiatric Outpatient Clinic in Vancouver, British Columbia, Canada over an 11-year period. This study showed that there was a significant shift in the socio-economic and clinical composition of patients referred to the clinic. The continuing demographic trend of more Mainland Chinese immigrating to Canada will bring about a greater demand for psychiatric services and a shift in matching resources to accommodate those services (Greater Vancouver Mental Health Services, 1995; Ganesan & Janze, 2005). It is therefore crucial that the provision of mental health care services and facilities address this demand. Future research should focus on comparing the clinical and demographic characteristics and mental health services provided for ethnic Chinese in the three other main metropolitan centres of Calgary, Toronto and Montreal.

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