Investigating the Influence of Immigration and Ethnicity in Predicting Suicide in Mental Illness

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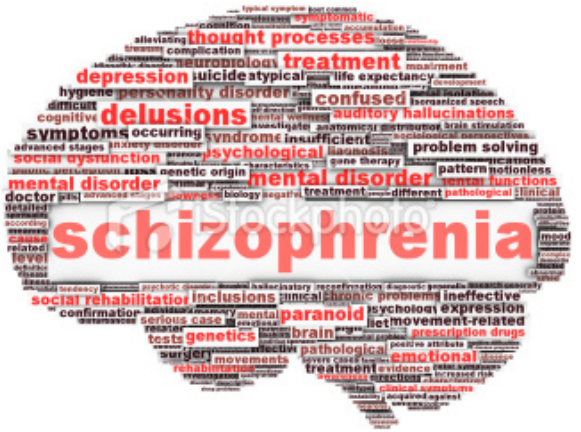
Suicide

- Suicide is a complex behaviour
- Ranks among the leading causes of death in Canada (Statistics Canada, 2014)
- Stigma and prejudice surrounding suicide
- Approximately 90% of those who attempt suicide have a mental illness (WHO, 2014)

Suicide in Schizophrenia

- Increased risk for self-injurious and suicidal behaviours (Brugnoli et al, 2012)
- Suicide rate is 12x higher among schizophrenia patients (Saha et al, 2007)
- Means of ending psychological pain or as a result of delusional ideations
- Approximately 20-40% will attempt during their illness (Pompili et al, 2007)



Risk Factors

Identifying individuals at the highest risk is the principal goal of suicide research.

- **History of suicide attempt** (Haw et al, 2005)
- Stressful life events (Heilä et al, 1999)
- Childhood trauma (Roy, 2005; Enns et al, 2006)
- Depression, substance abuse, insight, age of onset, unemployment, gender, etc.

Risk factors yield many false positives (Pompili et al, 2013)

Migration and Psychosis

- Increased immigration has had unexpected results on mental health (psychosis, depression)
- Migrant populations ~3x more likely to develop schizophrenia (Cantor-Graae and Selten, 2005)
- A 2.7 and 4.5 times higher risk for 1st and 2nd generation immigrants, respectively (Cantor-Graee and Selten, 2005)
- Social defeat may explain elevated risks (Cantor-Graee, 2007)

Table 1: Factors related to migration that affect mental health[12–28]

Premigration	Migration	Postmigration
Adult		
Economic, educational and occupational status in country of origin	Trajectory (route, duration)	Uncertainty about immigration or refugee status
Disruption of social support, roles and network	Exposure to harsh living conditions (e.g., refugee camps)	Unemployment or underemployment
Trauma (type, severity, perceived level of threat, number of episodes)	Exposure to violence	Loss of social status
Political involvement (commitment to a cause)	Disruption of family and community networks	Loss of family and community social supports
	Uncertainty about outcome of migration	Concern about family members left behind and possibility for reunification
		Difficulties in language learning, acculturation and adaptation (e.g., change in sex roles)
Child		
Age and developmental stage at migration	Separation from caregiver	Stresses related to family's adaptation
Disruption of education	Exposure to violence	Difficulties with education in new language
Separation from extended family and peer networks	Exposure to harsh living conditions (e.g., refugee camps)	Acculturation (e.g., ethnic and religious identity; sex role conflicts; intergenerational conflict within family)
	Poor nutrition	Discrimination and social exclusion (at school or with peers)
	Uncertainty about future	

Kirmayer et al 2011

Ethnicity and Psychosis

- Belonging to a visible minority group may lead to a higher risk for developing SCZ (Li, Law, Andermann, 2012).

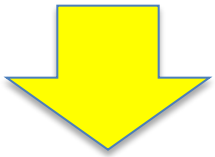
- Belonging to a neighbourhood of high ethnic density of a minority group can be a protective factor (Das-Munshi et al 2012, Schofield et al 2011, Kirkbride et al 2007)

- It is suggested that feelings of being “the exception to the norm” that contributes to the increased risk for SCZ (van Os 2012, Veling 2013)

- Ethnicity typically dictates a unique social group (i.e. language, religion, place of birth)

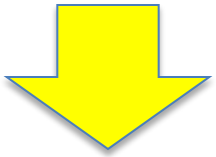
Immigration

(stressful factors)



Mental Illness

(psychosis/depression)



Suicide Attempt

Research Assessment

- Participants assessed according to two groups: Suicide Attempters and Non-Attempters.
- Recruitment from various mental health clinics throughout the GTA and CAMH
- Suicide attempters determined using the Columbia Suicide Severity Rating Scale (C-SSRS) and the Beck Suicide Ideation Scale (BSS)
- Logistic regression model to predict suicide attempt history according to ethnicity and migrant status

Clinical Summary

Total (N=430)	Suicide Attempters (N=163)	Non-Attempters (N=267)
Age (mean +- SD)	45.15 (11.34)	44.30 (13.25)
Age of Onset (mean +- SD)	22.40 (7.50)	24.64 (7.74)
Sex (Male/Female)	36/16	43/26
Migration Status (Migrant/Native)	52/111	165/102
Hospitalizations (mean +- SD)	6.67 (6.61)	4.51 (5.9)
Age at migration (mean +- SD)	16.50 (10.05)	13.0 (7.90)
Years Between Migration and First Suicide Attempt (X, SD)	12.25 (7.90)	N/A
Years Between Migration and Age of Psychosis Onset (X, SD)	11.5 (1.77)	13.38 (9.62)
Primary Language (English/Other)	139/24	224/43
Religion (Christianity/Other)	127/36	176/91
Age at First Suicide Attempt (X,SD)	24.88 (9.50)	N/A
Self-Reported Ethnicity (European/Other)	132/31	225/42

- Suicide and ethnicity trend
- # of Hospitalizations
- Age of psychosis onset

"Language and culture play an important role in mental health service delivery. For example, if I go to a service provider who doesn't know my language and is not familiar with my culture, first of all I will not be able to explain my problem to him/her as I want to say it, secondly, even if he/she gets me, will still not be able to provide me with culturally appropriate treatment which is very important." – *Focus Group Participant*

Hansson E, Tuck A, Lurie S and McKenzie K, for the Task Group of the Services Systems Advisory Committee, Mental Health Commission of Canada. (2010). Improving mental health services for immigrant, refugee, ethno-cultural and racialized groups: Issues and options for service improvement

Discussion

Conflicting reports for suicide rates among migrants:

- Similar suicide rates to country of origin.
- Higher suicide rates compared to their countries of origin.
- Lower or converge over time with those of the host country.
- Immigrants who exhibit suicidal behaviour in the new country had suicidal tendencies in their country of origin (genetic susceptibility manifesting itself at times of distress) .

Difficult to disentangle the effect ethnicity and migration have on suicide.

Aggregating immigrant groups as a singular entity can mask variations between different immigrant populations.

Recommendations

1) Support collaborative approaches to promoting migrant health across multiple systems (i.e. health, social services, resettlement, education) through coordinating partnerships between sectors.

2) Support integrated community-based mental health services that:

• address the social determinants of migrant mental health

• are gender and life stage sensitive

• recognize both the challenges and resiliencies of diverse groups of migrants (newcomers, immigrants, refugees, precarious status).

3) Support education and training towards providing the following:

• provide public education campaigns directed at diverse groups of migrants on the mental health system (acute and community based) and how to access appropriate services

• provide standardized and quality monitored education to cultural interpreters

• provide education to health and social service providers and students on culturally competent mental health promotion.

4) Support longitudinal and comparative research on migrant mental health

• How do gender, lifestage, migrant status, and social position influence mental health during the early years of resettlement and over time?

• What are the systems pathways to resilience versus vulnerability across groups?

• What are the best practices for individualized mental health service delivery across urban settings ?

• What are the mental health needs of individuals and families without legal immigration status?

• What are the access barriers to mental health services for refugee claimants?

• How does the pre-migration context for Government Assisted Refugees influence their post-migration mental health?

• What community educational strategies are effective in reducing stigma around mental health challenges and promoting early access to mental health care?

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