# Qualitative study of the perceived causes of depression in South Asian origin women in Toronto

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STROBE Statement—Checklist of items that should be included in reports of ***cross-sectional studies***

| | Item No | Recommendation |
|---|---|---|
| **Title and abstract** | 1 | (*a*) Indicate the study's design with a commonly used term in the title or the abstract |
| | | (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found done PAGE 2 |
| **Introduction** | | |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported Pages 5-7 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses pages 6/7 |
| **Methods** | | |
| Study design | 4 | Present key elements of study design early in the paper page Page 7 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection Page 7 |
| Participants | 6 | (*a*) Give the eligibility criteria, and the sources and methods of selection of participants |
| | | (*b*) Page 8 |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable Not applicable |
| Data sources/ measurement | 8* | For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group Page 8 |
| Bias | 9 | Describe any efforts to address potential sources of bias Page 9 |
| Study size | 10 | Explain how the study size was arrived at Page 9 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding Page 9 |
| | | (*b*) Describe any methods used to examine subgroups and interactions |
| | | (*c*) Explain how missing data were addressed |
| | | (*d*) If applicable, describe analytical methods taking account of sampling strategy |
| | | (*e*) Describe any sensitivity analyses |
| **Results** | | |
| Participants | 13* | (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing |

| | | |
|---|---|---|
| | | follow-up, and analysed page 7 and 9 and 10 |
| | | (b) Give reasons for non-participation at each stage |
| | | (c) Consider use of a flow diagram |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders<br>Page 9/10 |
| | | (b) Indicate number of participants with missing data for each variable of interest |
| Outcome data | 15* | Report numbers of outcome events or summary measures |
| Main results | 16 | Qualitative study<br><br>(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included |
| | | (*b*) Report category boundaries when continuous variables were categorized |
| | | (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses |
| **Discussion** | | |
| Key results | 18 | Summarise key results with reference to study objectives<br>page 18/19 |
| Limitations | 19 | Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias<br>page 20 |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence<br>Page 21 |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results |
| **Other information** | | |
| Funding | 22 | Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based<br>Page 4 |

*Give information separately for exposed and unexposed groups.

**Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

# Qualitative cross sectional study of the perceived causes of depression in South Asian origin women in Toronto

Samanthika Ekanayake, PhD[1],
Farah Ahmad, PhD[2] and
Kwame McKenzie, MD[3]*

*Corresponding Author
Kwame McKenzie.
[3]Director, Social Aetiology of Mental Illness (SAMI) Training Program, Health Systems and Health Equity Research Group, Centre for Addiction and Mental Health (CAMH),
455 Spadina Avenue, Suite 300
Toronto, ON. Canada. M5S 2G8
Phone: 416 535 8501 Ext 7636
Email: Kwame_McKenzie@camh.net

Affiliations
[1.] Post Doctoral Research Fellow, Social Aetiology of Mental Illness (SAMI) Training Program, Health Systems and Health Equity Research Group, Centre for Addiction and Mental Health (CAMH)
[2.] Assistant Professor, School of Health Policy and Management, Faculty of Health, York University

**Objective:** To explore how South Asian origin women in Toronto, Canada, understand and explain the causes of their depression.

**Design:** Cross sectional in depth qualitative interviews

**Setting:** Outpatient service in Toronto, Ontario

**Participants:** Ten women with symptoms of depression aged between 22-65 years of age. 7 were in India, 2 Sri-Lanka and 1 in Pakistan. 4 were Muslim, 3 Hindu and 3 Catholic. Two participants had university degrees, one had a high school diploma and all the other participants (7) had completed less than a high school education. 8 were married, 1 was unmarried and 1 a widow.

**Primary outcome:** Causes of depression as presented in thematic content analysis with some elements of grounded theory of in depth interviews.

**Results:** Three main factors emerged from the participant narratives as the causes of depression: family and relationships; culture and migration; and, socio-economic. The majority of the participants identified domestic abuse, marital problems and interpersonal problems in the family as the cause of their depression with culture and migration and socio-economic factors being contributory. None of our study participants reported spiritual, supernatural, or religious factors as causes of depression.

**Conclusion:** A "personal-social-cultural" model emerged as the aetiological paradigm for depression. Given the perceived causation psycho-social treatment methods may be more acceptable for South Asian origin women.

**Article focus**

An exploration of the perceived causes of depression in women of South Asian origin in Toronto, Canada.

**Key messages**

Depression in South Asian women in Toronto may be caused by social problems that could be the target for prevention and health promotion.

Given the perceived causation, psycho-social interventions may be more acceptable for South Asian origin women in Toronto.

Links between social and health services may be important in decreasing the burden of depression in South Asian origin women in Toronto.

**Strengths**

This study was able to interview a diverse cross section of South Asian origin women in a community setting.

The interviewer was also a South Asian women and this may have facilitated disclosure.

**Weaknesses:**

The study did not disaggregate the South Asian group into different religious groups or countries of origin.

**Key Words:** South Asian women, causes of depression, qualitative, illness models

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**All authors were involved in developing the concept, methodology, data analysis and drafting and editing the paper.**

**None of the authors has a conflict of interest.**

## Introduction

The way that people understand and explain illness depends on many factors including cultural background, education level, health beliefs, attitudes and knowledge and trust in health care systems.[1-3]

Illness explanatory models (IEM) examine the perspectives people have of illness; mainly focusing on aetiology, symptoms, severity, prognosis, reasons for consultation, and treatment preferences[4]. Research suggest that IEM ultimately determine a number of factors including help-seeking behaviour, treatment compliance, satisfaction, selection of pathways to care and selection of treatment[5,6]. IEM may vary between and within ethnic groups, gender groups, and different generations as well as for different types of illness[7-9] A better understanding of conceptual models of illness may help to improve service delivery and clinical outcomes and reduce health care cost[10].

Depression is one of the most under-recognized and under-treated mental illnesses in primary care globally[11]. It is one of the most common and costly mental health problems in Canada[12], [13].

The rates of depression in immigrants in Canada varies; some groups such as older adults and some South and East Asian groups may be at increased risk[16]. Though the use of general medical care is similar for immigrants and non-immigrants but immigrants are less likely to use mental health services [14, 15]. The reasons for the increased rates of

depression have not been well documented in Canada but with regards to service use studies report that 'bio-medical' models of health systems may act as barriers to care conflicting with the views of patients from other traditions [17,18].

Theoretical models of the aetiology of depression are diverse[19]. Bio-medical models consist of genetic, physical, or somatic causation. Socio-cultural models include life circumstances and cultural factors, while psychological models focus on psychological or behavioural factors. A multiple causation, 'bio-psycho-social', model has been widely accepted [20, 21, 22].

The lay understanding of depression varies between cultural and ethnic groups. For instance in European countries the majority of patients endorse 'bio-psychiatric' models, while in East and South East Asia psycho-social models predominate. [23] This may be linked to differences in help seeking as the former prefer psychiatric treatment[8] while latter prefer traditional healing, rituals, or faith healings[16].

Among the few Canadian studies that are focused on conceptual understandings of depression, Schreiber and Hatrick[24], reported that Euro-North American women predominantly report a 'bio-medical' explanatory models. But, to our knowledge, there are no studies conducted in Canada that have investigated the conceptual models of depression in minority ethnic groups. In order to begin to fill this gap in the literature, we conducted a qualitative study of women of South Asian origin. The aim of the study was

to identify and document how South Asian origin women in Toronto, Canada, understand and explain the causes of their depression.

The South Asian population is the largest visible minority in Canada [25]. 'South Asian' refers to people who originate from India, Sri Lanka, Bangladesh, Pakistan, and Nepal. They are a diverse group with significant ethnic, religious, and linguistic differences; but it has been argued that these groups share commonalities in their social networks, family interactions, and customs and traditions[26],[16]. This study investigated only one gender groups because conceptual models of depression vary by gender[9]. Women were chosen because the prevalence and incidence of depression is higher in this group[27, 28]. Exposure to risk factors may vary by gender group[29].

## Method

In depth individual interviews using qualitative analysis was used.

The sample included women over 18 years old, who were born in South Asia or whose parents were born in South Asia. 'South Asia' followed the Statistics Canada definition of India, Sri Lanka, Bangladesh, Pakistan, and Nepal. Recruitment was from a community based mental health agency which provides services to racialised communities in Toronto, Ontario in 2010. Community workers referred participants to the study or participants answered an advertisement placed in the community agency.

Those who were unable to read and speak in English were not included in this pilot study as there was no funding for interpreters. In order to increase the heterogeneity of the sample, we purposively recruited participants who had migrated from different countries, had differing marital status and belonged to different religious groups.

Depression was confirmed using GHQ 12 questionnaire. Those who scored more than 12 points (on a Likert scale) were invited for interview. Participants were provided with an environment to speak freely and openly about their experiences. The aim was to get a rich description of the perceived causes of depression from the perspective of the respondents.

Interviews were conducted by the first author (SE) and lasted 45-60 minutes. A topic guide was used to direct the flow of the interviews. The structure of the interview was as follows: participants were first asked to explain their personal, family and household circumstances. Then they were invited to talk about their health, their understanding of causes of their depression, their daily lifestyles, employment, the nature of any social and economic difficulties, and any social problems they faced. Finally, the participants were asked to comment on how they believe that those circumstances related to their mental health status. Interviews were taped and transcribed. All the transcripts were anonymized.

Ethics approval was obtained from the Research Ethics Board of the Centre for Addiction and Mental Health in Toronto, Ontario prior to the recruitment. An informed consent was obtained prior each of the interview.

Thematic content analysis with some elements of grounded theory[30] was used to analyse the data. Data collection, coding and analysis were inter-related processes. The analyses of interview transcripts was begun after the first interview. We used a modified version similar to the three step coding and analysis approach (open coding, axial coding and selective coding) introduced by the Strauss and Corbin[30]. Each transcript was read at least twice and core concepts were identified. Codes were assigned for the selected texts. This was further developed by adding sub-themes which were followed by the detailed coding. A preliminary coding scheme was developed after indentifying the major themes. The relationships and differences between codes were identified. Coding was done separately by each researcher (SE and KM), and then was discussed by the research team. The researchers cross-checked their coding structures and, in cases where mismatches occurred, we conducted detailed discussions to achieve consensus. NVivo$_9$ qualitative data analysis software[31] was used for the data analysis. Recruitment was stopped when no new themes were being identified fro the transcripts.

## Results

The sample:

Participants were aged between 22-65 years of age. Seven women were born in India, two in Sri Lanka and one in Pakistan. Four women were Muslim, three Hindu and three Catholic. Two participants had university degrees, one had a high school diploma and all the other participants (7) had completed less than a high school education. None of the

women were employed, and all were dependent on some form of income support from the government such as Ontario Disability Support Program (ODSP), Employment Insurance (EI), or the Old Age Security (OAS) program. Eight women were married, one was unmarried and the other was a widow. Two of the women had some history of mental illness other than depression.

**Causes of depression:**

Three significant factors that cause depression were emerged from participant's narratives:

1) individual, family and relationships;
2) culture and migration; and,
3) socio-economic factors.

Participants endorsed a variety of combinations of these problems with some identifying difficulties in all three as the cause of their depression. Table 1 presents a summary of themes and sub-themes emerged from the narratives.

Table 1 about here:

**1. Individual, family and relationship factors**

Individual, family and relationship factors were identified as the primary cause of depression by the majority of the participants. Domestic abuse, infidelity, stress of divorce or separation, and bereavement were the main stressors behind the depression.

***Abuse***

All members of the study group experienced some form of domestic abuse such as physical, social, psychological, verbal or economic abuses from their intimate partners. Prolonged traumatic and abusive experiences were viewed as the root cause of their depression.

Financial or economic abuse was reported frequently by the participants. Many women explained that they were forced to 'find jobs', 'work all seven days, or 'earned as much as', even though they were not allowed to have their own bank accounts. Some of our participants claimed that their husbands stole money from them, used their credit cards without authorisation and some stated that they were forced to get bank loans.

*ID 6: I had very stressful life..I worked in a factory.. I used to work all 7 days. ..On Fridays my husband used to come to my work place. He took my cheque and asked me to sign the back of it. He takes all the money & gives me $20 per week for the bus pass.. I felt desperate.. I had no money for anything…and he told to everybody that 'I have a money maker at home'…*

Restriction of personal contacts and demanding that women do not talk to other people in the neighbourhood were also identified as a main stressor. When husbands abandoned these women they were devastated as they were socially isolated and left with little or no access to money. Lack of understanding of support systems, and fear of talking to unknown people, together with language difficulties, led these women to remain silent.

Physical abuse, such as beating, slapping and hair pulling was mentioned by the majority of the women in the study group. According to the participants, their children were also victims of these incidents. The other forms of psychological or physical abuse, such as 'forcing to get out of the home', 'forcing to wear hijab", and 'name calling' also were mentioned.

*ID 4: In India it's perfectly normal for your husband to beat you…you have no choice other than just suffering.. When I came here, I thought it's normal too… and he hit me very badly to my shoulders, even blood came and my children cried… neighbors also heard…I had this experience for 17 years...*

***Health problems***

The majority of the participant's had been affected by some form of physical health problem. Narratives indicated that they felt overwhelmed by the stress of their poor health status. There were some participants, who were suffering from prolonged multiple illnesses such as diabetes, high blood pressure, fibromyalgia, and osteoporosis.

*ID 6: Sometime I still I feel that why all these things happened to me. My whole body is paining. I was very active in the past….. but now both hands are not good. I had an operation too. But still I can't even use my hand to eat food. Sometimes I keep plate on the table and eat like a dog….*

***Bereavement***

According to ID 8 (54 years old and a widow with no children), bereavement was the main cause of her depression.

*"ID 8: He is a very good husband, he never leave me alone. Every time when I go to doctors appointment he comes with me…..Now some times I don't eat, don't drink and crying all the time... Even I can't sleep. I remember him always…I got all this condition when he passed away.. ".*

Lack of extended family support, language difficulties that prevented her from attending grief counseling, and an inability to develop supportive social networks in the neighborhood made ID 8 more vulnerable to complicated grief reactions.

***Sexual infidelity***

The sexual infidelity of an intimate partner can be a devastating experience. Among the seven divorced or separated women in our sample, four mentioned that they discovered

that their husbands were having extra-marital relationships. They reported worry, sadness and depression following this.

***Aging and isolation***

Some older aged participants commented that their married children were not keen on caring for them, while others mentioned the burden of additional household chores such as caring for their grandchildren. Feelings of emotional and physical isolation, fear of the future because of their reliance on others and an inability to perform their own household activities (due to poor physical and mental health) led them to feel hopelessness and despair.

**2. Culture and migration**

***Stress of divorce and separation***

With the exception of one participant aged 33 years, none of the divorced or separated women were involved in secondary relationships. Thinking of a second marriage or having romantic relationships still remains 'unsuitable' or 'out of culture' concepts among the middle-aged and older women in this community. Results indicated that knowing that their former spouses had remarried or were currently involved in some sort of relationship brought these women more worry and jealousy.

Our samples claimed that traditionally in some SA cultures, divorce and separation are not acceptable and women may be blamed for a breakdown of their marriage. Participants painfully described the immense burden, stigma, and stress experienced once they were divorced or separated from their spouses.

*ID 4 "On the middle of the night he left me… I got a panic attack. I thought I am going to die…I was scared… How will society think now…. What will happen to my children? How will my parents and my people react to me when I go to India? What am I going to tell them?…When he started to get papers sent by the lawyer he phoned me and told me I am a characterless woman. That was first time I went to court, your family no body do that…".*

Participants also talked about the negative responses from their own family or other SA community members about their decision to get a divorce. Some of the women were still using their husbands' surnames or lying about their actual family status, while others dealt with the problem by cutting themselves off from other SA people.

***Cultural distance***

Results showed that cultural distance between parent and children was also stressful for both groups. Those with strong SA values seemed to be more depressed and were not in a position to accept their children's out-of-culture marriages or pre-marital relationships.

They further believed that they did not have power or authority to influence their children.

*ID 3: "My son went out my culture and married. He married a Spanish girl. She doesn't want me to be in his life. Although I try hard to tell him she was not really kind of people we need…he didn't listen to me. …now he is suffering. One day this woman asked me to make a beef soup. I don't eat or even touch beef.. I really keep rules that I was taught to live.".*

In contrast, younger participants claimed they were suffering because of the strict rules of their parents. They identified themselves as being caught between traditional and modern. Some of our participants believed that they were brought up in more restrictive family environments than other Canadian girls in their age groups. Some said they had been asked to 'quit schools' or 'choose jobs suits to girls' or 'get marry through arranged marriages'. Narratives further indicated that younger SA women were having more difficulties in negotiating their needs and expectations with their parents.

***Stigma***

The cultural stigma of being labeled as a mentally ill person was also a continuous stress factor. ID 2 revealed her observation about the SA communities and explained that some people believe that a person with a mental illness is 'an out of their control person' or 'should be look down upon' or they should be 'scared to talk' with them.

*ID 2: My dad is saying that since you are mental, you should get married. And I said why? He said then your husband makes you happy….But if someone knows that I am a mentally ill, then they don't marry me. In our society there is a big label on mental illness..*

***Difficulties in new country***

Migration related stress was also identified as a reason for depression. Migration is a transformation in immigrant's lives and it is associated with high hopes. Lack of understanding of the Canadian system, especially limited knowledge concerning the existing resources and language difficulties, made their lives more difficult and stressful.

**Socio-economic factors**

***Economic difficulties***

Almost all of the participants were living on form of government income support. Participants acknowledged that depression was often linked to financial difficulties, especially when there is insufficient income support or loss of employment.

***Discrimination and racism***

Subjective experiences with unfair treatment, racist acts, or acts of hatred from other Canadians, were also identified as a cause of depression and powerlessness. Poorer access to 'high standard jobs' and differential treatment in health services and other

service provision agencies were also highlighted. Participants openly talked about the challenges they faced in Canada such as loss of cultural identity and loss of social pride. Many Muslim women acknowledged that wearing of a 'hijab' caused some problems, especially after the 9/11 US attack. Participants also mentioned that immediate supervisors of other cultural backgrounds believed that people of 'SA identity' were inferior.

*ID 4: … Discrimination is 100% it's every where. Even at hospitals. If we ask something they take you easy…. When people see me they think that I don't understand or speak English. Even at job. When I was working that lady gave me very hard time…. The way you dress up. They don't like you. If you dress like their own dress, if you speak like them they will like you. But if you dress your own dress they will not happy.*

## Discussion

Study findings highlight the multi-dimensional nature of the aetiology models of depression among SA immigrant women in Toronto, Canada.

Similar to studies in other countries[32-34] women of SA background in Canada perceived depression as an outcome of personal, family, cultural and social circumstances. Some of the stress factors such as abuse, bereavement, sexual infidelity, and the stress of divorce, were identified as the root causes of depression. Other stressors, like physical health problems, aging and isolation, cultural distance, stigma, difficulties faced in Canada, and

socio-economic problems were identified as continuous stressors but were considered less important and were less frequent.

The participants endorsed a "personal-social-cultural" model for the aetiology of depression. In contrast with those previous study findings, none of our study participants had spiritual, supernatural or religious attributions of depression.

The majority of past studies on IEM of depression have used primary care patients with symptoms of depression[8],[33] or general population samples[23]. In contrast, our sample was of women who were being followed by a community mental health provider. It may be that our sample had more chronic or severe depression or were people who were more accepting of social and biological explanations and mental health system treatment.

The findings reveal the depth of violent and traumatic living experiences suffered by some women of SA origin. Some of their stories had remained secret for years. The association between recent life events and depression has been well documented [36-40.] . As has the association with long-term negative self esteem, lack of social support, loss of intimate relationship, living alone, and poor physical health conditions[38-40].

Immigrants face many challenges in their new countries; however, such challenges can be more profound during the adjustment process for women with less education and power[39]. First generation SA women have been reported to be more likely to have lower self-evaluation and self-esteem[16]. The existing vulnerabilities and powerlessness of some SA women may increase after their arrival to Canada[41]. The degree and nature of abuse

and oppression faced by SA women in Canada has been well documented by previous studies[42, 43]. Our participants indicated that this was a major cause of depression [44].

Divorce or separation is still considered unacceptable in many South Asian groups[45]. Lack of traditional support systems to solve domestic violence and marriage disputes in immigrant groups is problematic. These are designed to solve marriage problems and keep the marriage together [23, 41]. The lack of these led to some of the women in this study to get support from legal support services in Canada which led to divorce.

There is some evidence that people of SA origin in Canada maintain close ties with their country of origin and more strongly preserve their cultural heritage[26]. This was confirmed in by the views of old aged group. However, results further indicate that strong attachment to the culture of their own countries has created a cultural distance and conflict between parents and children.

We acknowledge the fact that this is a small study. It was based in Toronto and there may be differences in SA populations living in rural areas and different urban areas in Canada. The study also uses the term SA to identify a broad group of people with significant cultural, social and historical differences. It is of interest that despite this their narratives and the causes they thought were the main reasons for their depression were similar. We do not know how representative the results are. Indeed participants were selected from a community based mental health agency and this inevitably introduces an

element of sampling bias. It may be that we selected people who had more severe depression, we may also have selected people who were more likely to accept mainstream help. However, with regards to the last point it is worth pointing out that the service we used to identify participants is a community based agency which specifically offers help to racialised groups and is run by multi-cultural staff with a SA woman as the chief executive. The service is funded by Ontario but is not considered by many as mainstream. Those who did not speak English were excluded and this may have skewed the demographic. Despite all of this the narratives from our participants made the authors feel compelled to share the data. This study does offer an in depth and sometimes harrowing insight into the world of SA women in Toronto and the perceived causes of their depression. It offers possible avenues that could be further investigated for the development of health promotion or illness prevention targeted at this population.

This pilot study used a qualitative approach. However, it may be that a larger scale mixed methods approach would allow quantification of the rates of particular risk factors and their associations and interactions. A large scale, mixed method study, involving both male and female participants, may be required to explore in more depth the IEMs among South Asians.

**Summary**

In summary, this study provides an insight to conceptual models of depression among the SA immigrant women in Toronto, Canada. Attributions of depression heavily consisted of individual, family, relationships, social, cultural or economic consequences rather than

biological or spiritual causation. The findings of this study further enhance our understanding of the social determinants of mental health, and clearly show how individuals understand the combination of individual, family, social or environmental causation. The results of this study may have implications for policy, practice and education. For the communities who heavily rely on personal-social-cultural models of depression, it may be more beneficial and effective to provide a combination of psycho-social and biomedical treatments. Culturally appropriate support to mediate domestic problems may be important in decreasing the rates and improving the outcomes for SA women.

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**Table1: Thematic framework of the results**

| **1. Individual, family and relationship factors** | Sub themes |
|---|---|
| Abuse | **Financial/economic:** Controlling of income, forcing to work, stealing money, unauthorised use of credit cards, forcing to obtain loans.<br>**Psychological:** Humiliation, threatening to take custody of children, restricting personal contacts, forcing not to talk family and friends.<br>**Physical:** Beating, slapping, pulling hair and choking. |
| Physical health problems | Multiple chronic illness, diabetes, high blood pressure, osteoporosis and fibromyalgia. |
| Bereavement | Lack of family support, difficulty in attending counselling, no social support networks in the neighbourhood. |
| Sexual infidelity | Social and emotional isolation. |
| Aging and isolation | Difficulties in living with children's families, isolation, extra work loads such as child caring for grandchildren. |
| **2. Culture and migration** | |
| Stress of divorce and separation | Negative response from family and community, cultural taboos on second marriage, loss of identity, fear and uncertainty of children. |
| Cultural distance | **Parents:** worry concerning westernizing of children, out of culture marriages.<br>**Children:** restricted family environments, strict rules, arranged marriages. |
| Stigma | Labelling as a mentally ill, isolation from community |
| Difficulties in new country | Loss of expectation, lack of understanding of systems, language difficulties. |
| **3. Socio-economic factors** | |
| Economic difficulties | Lack of income from government income support programs, loss of jobs |
| Discrimination and racism | Unfair treatments, racist acts, acts of hatred, discrimination for jobs |

# Qualitative study of the perceived causes of depression in South Asian origin women in Toronto

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# Qualitative cross sectional study of the perceived causes of depression in South Asian origin women in Toronto

Samanthika Ekanayake, PhD[1],
Farah Ahmad, PhD[2] and
Kwame McKenzie, MD[3]*

*Corresponding Author
Kwame McKenzie.
[3]Director, Social Aetiology of Mental Illness (SAMI) Training Program, Health Systems and Health Equity Research Unit, Centre for Addiction and Mental Health (CAMH),
455 Spadina Avenue, Suite 300
Toronto, ON. Canada. M5S 2G8
Phone: 416 535 8501 Ext 7636
Email: Kwame_McKenzie@camh.net

Affiliations
[1.] Post Doctoral Research Fellow, Social Aetiology of Mental Illness (SAMI) Training Program, Health Systems and Health Equity Research Group, Centre for Addiction and Mental Health (CAMH)
[2.] Assistant Professor, School of Health Policy and Management, Faculty of Health, York University

**Objective:** To explore how South Asian origin women in Toronto, Canada, understand and explain the causes of their depression.

**Design:** Cross sectional in depth qualitative interviews

**Setting:** Outpatient service in Toronto, Ontario

**Participants:** Ten women with symptoms of depression aged between 22-65 years of age. Seven 7 were ~~in~~from ~~-~~India, two from 2 ~~-~~Sri-Lanka and one ~~1~~ from ~~in~~ Pakistan. Four 4 ~~-~~were Muslim, three 3 ~~-~~Hindu and three 3 ~~-~~Catholic. Two participants had university degrees, one a high school diploma and seven had completed less than a high school education. ~~8 -~~Eight were married~~,~~, one ~~1~~ was unmarried and one ~~1~~ a widow.

~~**Primary outcome:** Causes of depression as presented in thematic content analysis with some elements of grounded theory of in depth interviews.~~

**Results:** Three main factors emerged from the participant narratives as the causes of depression: family and relationships; culture and migration; and, socio-economic. The majority of the participants identified domestic abuse, marital problems and interpersonal problems in the family as the cause of their depression. Culture and migration and socio-economic factors were considered contributory. None of our study participants reported spiritual, supernatural, or religious factors as causes of depression.

**Conclusion:** A ~~"~~personal-social-cultural~~"~~ model emerged as the aetiological paradigm for depression. Given the perceived causation psycho-social treatment methods may be more acceptable for South Asian origin women.

**Article focus**

An exploration of the perceived causes of depression in women of South Asian origin in Toronto, Canada.

**Key messages**

Depression in South Asian women in Toronto may be caused by social problems that could be the target for prevention and health promotion.

Given the perceived causation, psycho-social interventions may be more acceptable for South Asian origin women in Toronto.

Links between social and health services may be important in decreasing the burden of depression in South Asian origin women in Toronto.

**Strengths**

This study was able to interview a diverse cross section of South Asian origin women in a community setting.

The interviewer was also a South Asian women and this may have facilitated disclosure.

**Weaknesses:**

The study did not disaggregate the South Asian group into different religious groups or countries of origin.

This study only included participants who could speak English.

**Key Words:** South Asian, women, causes of depression, qualitative, illness models

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**All authors were involved in developing the concept, methodology, data analysis and drafting and editing the paper.**

**None of the authors has a conflict of interest.**

**Introduction**

The way that people understand and explain illness depends on many factors including cultural background, education level, health beliefs, attitudes and knowledge and trust in health care systems.[1-3]

Illness explanatory models (IEM) examine the perspectives people have of illness; mainly focusing on aetiology, symptoms, severity, prognosis, reasons for consultation, and treatment preferences.[4] Research suggest that IEM ultimately determine a number of factors including help-seeking behaviour, treatment compliance, satisfaction, selection of pathways to care and selection of treatment.[5 6] IEM may vary between and within ethnic groups, gender groups, and different generations as well as for different types of illness.[7-9] A better understanding of conceptual models of illness may help to improve service delivery and clinical outcomes and reduce health care cost.[10]

Depression is one of the most under-recognized and under-treated mental illnesses in primary care globally.[11] It is one of the most common and costly mental health problems in Canada.[12 13]

The rates of depression in immigrants in Canada varies; some groups such as older adults and some South and East Asian groups may be at increased risk.[14] Though the use of general medical care is similar for immigrants and non-immigrants but immigrants are less likely to use mental health services.[15 16] The reasons for the increased rates of

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depression have not been well documented in Canada but with regards to service use studies report that 'bio-medical' models of health systems may act as barriers to care by conflicting with the views of patients from other traditions.[17 18 19]

Theoretical models of the aetiology of depression are diverse.[20] Bio-medical models consist of genetic, physical, or somatic causation. Socio-cultural models include life circumstances and cultural factors, while psychological models focus on psychological or behavioural factors. A multiple causation, 'bio-psycho-social', model has been widely accepted.[21-23]

The lay understanding of depression varies between cultural and ethnic groups. For instance in European countries the majority of patients endorse 'bio-psychiatric' models, while in East and South East Asia psycho-social models predominate.[24] Some argue that this may be linked to differences in help seeking as the former prefer psychiatric treatment[8] while latter prefer more traditional socially focussed healing modalities.[14, 19] Though it should be noted that patients may not seek help when there is clearly a need.[19]

Among the few Canadian studies that are focused on conceptual understandings of depression, Schreiber and Hatrick[25], reported that Euro-North American women predominantly report a 'bio-medical' explanatory models. But, to our knowledge, there are no studies conducted in Canada that have investigated the conceptual models of depression in minority ethnic groups. In order to begin to fill this gap in the literature, we

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conducted a qualitative study of women of South Asian origin. The aim of the study was to identify and document how South Asian origin women in Toronto, Canada, understand and explain the causes of their depression. This was an initial study to test the feasibility of recruitment, to see whether South Asian women with depression would speak with researchers about causation and to map out the range of models of causation in population to aid the development of questionnaires and hypotheses for possible larger mixed methods studies.

The South Asian population is the largest visible minority in Canada.[26] 'South Asian' refers to people who originate from India, Sri Lanka, Bangladesh, Pakistan, and Nepal. They are a diverse group with significant ethnic, religious, and linguistic differences; but it has been argued that these groups share commonalities in their social networks, family interactions, and customs and traditions.[14~~16~~ 27] This study investigated only one gender groups because conceptual models of depression vary by gender.[9] Women were chosen because the prevalence and incidence of depression is higher in this group.[28 29] Exposure to risk factors may vary by gender group.[30]

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## Method

The study used qualitative techniques to analyse in depth individual interviews.

The sample included women over 18 years old, who were born in South Asia or whose parents were born in South Asia. 'South Asia was defined as per' Statistics Canada as

India, Sri Lanka, Bangladesh, Pakistan, and Nepal. Recruitment was from a community based mental health agency which provides services specifically to racialised communities in Toronto, Ontario in 2010. Community workers referred participants to the study or participants answered an advertisement placed in the community agency. Participants were informed about researcher' ethnic background, occupation and credentials. Also a description of purpose of the research was given with the study information materials. They were then approached face to face by the researchers and consented.

Those who were unable to read and speak in English were not included in this pilot study as there was no funding for interpreters. In order to increase the heterogeneity of the sample, we purposively recruited participants who had migrated from different countries, had differing marital status and belonged to different religious groups.

Depression was confirmed using GHQ 12 questionnaire. Those who scored more than 12 points (using the Likert scale) were invited for interview. Participants were interviewed alone at the community mental health agency offices. It provided them with an environment to speak freely and openly about their experiences. The aim was to get a rich description of the perceived causes of depression from the perspective of the respondents.

Interviews were conducted by the first author (SE), a South Asian immigrant woman, and lasted 45-60 minutes. A topic guide was used to direct the flow of the interviews. The structure of the interview was as follows: participants were first asked to explain their

personal, family and household circumstances. Then they were invited to talk about their health, their understanding of causes of their depression, their daily lifestyles, employment, the nature of any social and economic difficulties, and any social problems they faced. Finally, the participants were asked to comment on how they believe that those circumstances related to their mental health status. Interviews were taped and transcribed. All the transcripts were anonymized**.** **Field notes were also made during the interview.**

Ethics approval was obtained from the Research Ethics Board of the Centre for Addiction and Mental Health in Toronto, Ontario prior to the recruitment. Informed consent was obtained prior each of the interview.

Thematic content analysis with some elements of grounded theory[31] was used to analyse the data. Data collection, coding and analysis were inter-related processes. The analyses of interview transcripts were begun after the first interview. We used a modified version similar to the three step coding and analysis approach (open coding, axial coding and selective coding) introduced by the Strauss and Corbin.[31] Each transcript was read at least twice and core concepts were identified. Codes were assigned for the selected texts. This was further developed by adding sub-themes which were followed by the detailed coding. A preliminary coding scheme was developed after indentifying the major themes. All three researchers have post doctoral training in qualitative research and have published qualitative papers in peer reviewed journals. The relationships and differences between

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codes were identified. Coding was done separately by each researcher (SE and KM), and then was discussed by the research team. The researchers cross-checked their coding structures and, in cases where mismatches occurred, we conducted detailed discussions to achieve consensus. NVivo9 qualitative data analysis software[32] was used for the data analysis. Recruitment was stopped when no new themes were being identified from the transcripts.

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**Results**

The sample:

There were ten participants in the study. Everyone who was referred took part. There were no dropouts. They were aged between 22-65. Seven women were born in India, two in Sri Lanka and one in Pakistan. Four women were Muslim, three Hindu and three Catholic. Two participants had university degrees, one had a high school diploma and seven had completed less than a high school education. None of the women were employed, and all were dependent on some form of income support from the government such as Ontario Disability Support Program (ODSP), Employment Insurance (EI), or the Old Age Security (OAS) program. Eight women were married, one was unmarried and the other was a widow. Two of the women had some history of mental illness other than depression.

**Causes of depression:**

Three significant factors that cause depression were emerged from participant's narratives:

1) individual, family and relationships;
2) culture and migration; and,
3) socio-economic.

Participants endorsed a variety of combinations of these problems with some identifying difficulties in all three as the cause of their depression. Table 1 presents a summary of themes and sub-themes emerged from the narratives.

Table 1 about here:

**1. Individual, family and relationship factors**

Individual, family and relationship factors were identified as the primary cause of depression by the participants. Domestic abuse, infidelity, stress of divorce or separation, and bereavement were the main stressors behind the depression.

***Abuse***

All members of the sample group experienced some form of domestic abuse such as physical, social, psychological, verbal or economic abuses from their intimate partners. Prolonged traumatic and abusive experiences were viewed as the root cause of their depression.

Financial or economic abuse was reported frequently by the participants. Seven ~~Many~~ women explained that they were forced to "~~'~~find jobs"~~'~~, "~~'~~work all seven days", or~~'~~, that they were not allowed to have their own bank accounts. Three ~~Some~~ of our participants claimed that their husbands stole money from them, used their credit cards without authorisation and that they were forced to get bank loans.

*ID 6 (45 years): "I had very stressful life..I worked in a factory. I used to work all 7 days. On Fridays my husband used to come to my work place. He took my cheque and asked me to sign the back of it. He takes all the money and gives me $20 per week for the bus pass. I felt desperate. I had no money for anything…and he told to everybody: " ~~'~~I have a money maker at home" "~~'~~*

Restriction of personal contacts and demanding that women do not talk to other people in the neighbourhood were also identified as a main stressor. When husbands abandoned these women they were devastated as they were socially isolated and left with little or no access to money. Lack of understanding of support systems, and fear of talking to unknown people, together with language difficulties, led these women to remain silent.

Physical abuse, such as beating, slapping and hair pulling was mentioned by eight ~~the majority of the~~ women in the study group. According to the participants, their children were also victims of these incidents. The other forms of psychological or physical abuse,

such as being forced to ‘get out of their home, being forced to ’‘wear hijab and being called names ‘’were also mentioned.

*ID 4 (45 years): ”In India it’s perfectly normal for your husband to beat you…you have no choice other than just suffering. When I came here, I thought it’s normal too and he hit me very badly to my shoulders, even blood came and my children cried. Neighbors also heard. I had this experience for 17 years.”*

***Health problems***

Seven of the participant’s had been affected by some form of physical health problem. Narratives indicated that they felt overwhelmed by the stress of their poor health status. There were five ~~some~~ participants, who were suffering from prolonged multiple illnesses such as diabetes, high blood pressure, fibromyalgia, and osteoporosis.

*ID 6 (45 years): “Sometimes I still I feel that why all these things happened to me. My whole body is paining. I was very active in the past... but now both hands are not good. I had an operation too. But still I can’t even use my hand to eat food. Sometimes I keep plate on the table and eat like a dog.”*

***Bereavement***

According to ID 8 (54 years old and a widow with no children), bereavement was the main cause of her depression.

*"ID 8 (54 years): "He is a very good husband, he never leave me alone. Every time when I go to doctors appointment he comes with me. Now some times I don't eat, don't drink and crying all the time. Even I can't sleep. I remember him always. I got all this condition when he passed away."*

Lack of extended family support, language difficulties that prevented her from attending grief counseling, and an inability to develop supportive social networks in the neighborhood made ID 8 more vulnerable to complicated grief reactions.

***Sexual infidelity***

The sexual infidelity of an intimate partner can be a devastating experience. Among the seven divorced or separated women in our sample, four mentioned that they discovered that their husbands were having extra-marital relationships. They reported worry, sadness and depression following this.

***Aging and isolation***

Two of the Some older aged participants commented that their married children were not keen on caring for them, while others mentioned the burden of additional household chores such as caring for their grandchildren. Feelings of emotional and physical isolation, fear of the future because of their reliance on others and an inability to perform

their own household activities (due to poor physical and mental health) led them to feel hopelessness and despair.

**2. Culture and migration**

***Stress of divorce and separation***

With the exception of one participant aged 33 years, none of the divorced or separated women were involved in secondary relationships. Thinking of a second marriage or having romantic relationships after marriage remains an 'unsuitable' or 'out of culture' concepts among the middle-aged and older women in this community. Results indicated that knowing that their former spouses had remarried or were currently involved in some sort of relationship brought these women more worry and jealousy.

Our samples claimed that traditionally in some South Asian cultures, divorce and separation are not acceptable and women may be blamed for a breakdown of their marriage. Participants painfully described the immense burden, stigma, and stress experienced once they were divorced or separated from their spouses.

*ID 4 (45 years): "'On the middle of the night he left me. I got a panic attack. I thought I am going to die. I was scared. How will society think now? What will happen to my children? How will my parents and my people react to me when I go to India? What am I going to tell them? When he started to get papers sent by the lawyer he phoned me and*

*told me I am a characterless woman. That was first time I went to court, your family no body do that."*.

Participants also talked about the negative responses from their own family or other South Asian community members about their decision to get a divorce. Two ~~Some~~ of these women were still using their husbands' surnames or lying about their actual family status, while others dealt with the problem by cutting themselves off from other South Asian people.

***Cultural distance***

Results showed that cultural distance between parent and children was also stressful for both groups. Those with strong South Asian values seemed to be more depressed and were not in a position to accept their children's out-of-culture marriages or pre-marital relationships. They further believed that they did not have power or authority to influence their children.

*ID 3 (65 years): "My son went out my culture and married. He married a Spanish girl. She doesn't want me to be in his life. Although I try hard to tell him she was not really kind of people we need he didn't listen to me. Now he is suffering. One day this woman asked me to make a beef soup. I don't eat or even touch beef. I really keep rules that I was taught to live."*.

In contrast, younger participants claimed they were suffering because of the strict rules of their parents. They identified themselves as being caught between traditional and modern. Two of ~~Some of~~ our participants believed that they were brought up in more restrictive family environments than other Canadian girls in their age groups. Some said they had been asked to ‘quit schools’ or ‘choose jobs that are suited to girls’ or have an arranged marriage’’. Narratives further indicated that younger South Asian women were having more difficulty in negotiating their needs and expectations with their parents.

***Stigma***

The cultural stigma of being labeled as a mentally ill person was also a continuous stress factor. ID 2 (30 years) revealed her observation about the South Asian community and explained that some people believe that a person with a mental illness is ‘an out control person’ or ‘should be looked down upon’ or they should be ‘scared to talk’ with them.

*ID 2: “My dad is saying that since you are mental, you should get married. And I said why? He said then your husband makes you happy. But if someone knows that I am a mentally ill, then they don’t marry me. In our society there is a big label on mental illness.”*

***Difficulties in new country***

Migration related stress was also identified as a reason for depression. Migration is a transformation in immigrant’s lives and it is associated with high hopes. Lack of

understanding of the Canadian system, especially limited knowledge concerning the existing resources and language difficulties, made their lives more difficult and stressful.

**Socio-economic factors**

***Economic difficulties***

Almost all of the participants were living on form of government income support. Participants acknowledged that depression was often linked to financial difficulties, especially when there is insufficient income support or loss of employment.

***Discrimination and racism***

Subjective experiences with unfair treatment, racist acts, or acts of hatred from other Canadians were also identified as a cause of depression and powerlessness. Poorer access to ~~'~~high standard jobs~~'~~ and differential treatment in health services and other service provision agencies were also highlighted. Participants openly talked about the challenges they faced in Canada such as loss of cultural identity and loss of social pride. ~~Many~~ Muslim women acknowledged that wearing of a ~~'~~hijab~~'~~ caused some problems, especially after the 9/11 terrorist attack in the USA. Participants also mentioned that immediate supervisors of other cultural backgrounds believed that people of South Asian ~~'~~ethnicity~~'~~ were inferior.

*ID 4 (45 years): "Discrimination is 100% it's every where. Even at hospitals. If we ask something they take you easy. When people see me they think that I don't understand or speak English. Even at job. When I was working that lady gave me very hard time. The way you dress up. They don't like you. If you dress like their own dress, if you speak like them they will like you. But if you dress your own dress they will not happy. "*

**Discussion**

The study findings highlight the multi-dimensional nature of the aetiological models of depression among South Asian immigrant women in Toronto, Canada.

Similar to studies in other countries[33-35] women of South Asian background in Canada perceived depression as an outcome of personal, family, cultural and social circumstances. Some of the stress factors such as abuse, bereavement, sexual infidelity, and the stress of divorce, were identified as the root causes of depression. Other stressors, like physical health problems, aging and isolation, cultural distance, stigma, difficulties faced in Canada, and socio-economic problems were identified as continuous stressors but were considered less important and were less frequent.

The participants endorsed a personal-social-cultural model for the aetiology of depression. In contrast with those previous study findings, none of our study participants offered spiritual, supernatural or religious causes of their depression.[36]

The majority of past studies on IEM of depression have used primary care patients with symptoms of depression[8, 34] or general population samples.[24] In contrast, our sample was

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of women who were being followed by a community mental health provider. It may be that our sample had more chronic or severe depression or were people who were more accepting of social and biological explanations and mental health system treatment.

The findings reveal the depth of violent and traumatic living experiences suffered by some women of South Asian origin. Some of their stories had remained secret for years. Such silence in the face of psychological trauma has been identified in other studies of women in other parts of the world.[19] The association between recent life events and depression has been well documented.[37-41] As has the association with long-term negative self esteem, lack of social support, loss of intimate relationship, living alone, and poor physical health conditions.[37 41 42]

The results of studies conducted with South Asian immigrant women in the UK are consistent with some of our findings.[43 44 45, 46] The belief that depression has social origins seems to be common in South Asian groups. Many women from these groups link their depression with losses such as bereavement, ill-health or job related events.[44 46]

Immigrants face many challenges in their new countries; however, such challenges can be more profound during the adjustment process for women with less education and power.[37 43] First generation South Asian origin women have been reported to be more likely to have lower self-evaluation and self-esteem.[14 16] The existing vulnerabilities and powerlessness of some South Asian women may increase after their arrival to

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Canada.[45,47] The degree and nature of abuse and oppression faced by South Asian women in Canada has been well documented by previous studies.[46, 47,48, 49] Our participants indicated that this was a major cause of depression.[48,50]

Divorce or separation is still considered unacceptable in many South Asian groups.[49,51] Lack of traditional support systems to solve domestic violence and marriage disputes in immigrant groups is problematic. These are designed to solve marriage problems and keep the marriage together. [23, 41] Lack of these led to some of the women in this study to get support from legal support services in Canada which led to divorce.

There is some evidence that people of South Asian origin in Canada maintain close ties with their country of origin and more strongly preserve their cultural heritage.[27] This was confirmed in by the views of old aged group. However, results further indicate that strong attachment to the culture of their own countries has created a cultural distance and conflict between parents and children. The cultural vulnerability faced by immigrants, specially by the South Asian immigrant women has been identified as a main cause for depression by studies conducted in the UK.[43, 50,45, 52]

We acknowledge the fact that this is a small study. It was based in Toronto and there may be differences in SA populations living in rural areas and different urban areas in Canada. The study was conducted in English and this may have imposed some limitations on the findings as the participants may have felt more comfortable describing their

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perceived causes of depression in their own languages. The study also uses the term South Asian to identify a broad group of people with significant cultural, social and historical differences. It is of interest that despite this their narratives and the causes they thought were the main reasons for their depression were similar.

We do not know how representative the results are. Indeed participants were selected from a community based mental health agency and this inevitably introduces an element of sampling bias. It may be that we selected people who had more severe depression, we may also have selected people who were more likely to accept mainstream help. However, with regards to the last point it is worth pointing out that the service we used to identify participants is a community based agency which specifically offers help to racialised groups and is run by multi-cultural staff with a South Asian woman as the chief executive. The service is funded by Ontario but is not considered by many as mainstream. Those who did not speak English were excluded and this may have skewed the demographic. Despite all of this the narratives from our participants made the authors feel compelled to share the data. This study offers an in depth and sometimes harrowing insight into the world of South Asian women in Toronto and the perceived causes of their depression. If these factors are the cause of depression for some in the community then decreasing their impact may be a possible avenue that could be further investigated for the development of health promotion or illness prevention targeted at this population.

This pilot study used a qualitative approach. It demonstrated that recruitment of South Asian women with depression is possible, that this group will discuss causation of depression and it has led to a model for the types of causes identified. It has been used to write a grant for a larger -scale mixed methods approach which would allow quantification of the rates of particular risk factors and their associations and interactions.

**Summary**

In summary, this study provides an insight to conceptual models of depression among the South Asian origin women in Toronto, Canada. Attributions of depression heavily consisted of individual, family, relationships, social, cultural or economic consequences rather than biological or spiritual causation. The findings of this study further enhance our understanding of the social determinants of mental health, and clearly show how individuals understand the combination of individual, family, social or environmental causation. Communities that perceive their illnesses as caused by social factors often prefer social remedies. ~~The results of this study may have implications for policy, practice and education. For the communities who heavily rely on personal social cultural models of depression, it may be more beneficial and effective to provide a combination of psycho-social and biomedical treatments. Culturally appropriate support to mediate domestic problems may be important in decreasing the rates and improving the outcomes for SA women.~~

Understanding the perceived causes of depression in the South Asian origin population of Toronto may help in the development of culturally appropriate prevention strategies.

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**Table1: Thematic framework of the results**

| **1. Individual, family and relationship factors** | Sub themes |
|---|---|
| Abuse | **Financial/economic:** Controlling of income, forcing to work, stealing money, unauthorised use of credit cards, forcing to obtain loans.<br>**Psychological:** Humiliation, threatening to take custody of children, restricting personal contacts, forcing not to talk family and friends.<br>**Physical:** Beating, slapping, pulling hair and choking. |
| Physical health problems | Multiple chronic illness, diabetes, high blood pressure, osteoporosis and fibromyalgia. |
| Bereavement | Lack of family support, difficulty in attending counselling, no social support networks in the neighbourhood. |
| Sexual infidelity | Social and emotional isolation. |
| Aging and isolation | Difficulties in living with children's families, isolation, extra work loads such as child caring for grandchildren. |
| **2. Culture and migration** | |

| | |
|---|---|
| Stress of divorce and separation | Negative response from family and community, cultural taboos on second marriage, loss of identity, fear and uncertainty of children. |
| Cultural distance | **Parents:** worry concerning westernizing of children, out of culture marriages.<br>**Children:** restricted family environments, strict rules, arranged marriages. |
| Stigma | Labelling as a mentally ill, isolation from community |
| Difficulties in new country | Loss of expectation, lack of understanding of systems, language difficulties. |
| **3. Socio-economic factors** | |
| Economic difficulties | Lack of income from government income support programs, loss of jobs |
| Discrimination and racism | Unfair treatments, racist acts, acts of hatred, discrimination for jobs |

**Consolidated criteria for reporting qualitative research (COREQ): a 32- item checklist for interviews and focus groups**

**Allison Tong, Peter Sainsbury and Jonathan Craig.**
**International Journal for Quality in Health Care, 2007. 19(6) 349-357**

| No Item | Guide questions/description |
|---|---|
| **Domain 1: Research team and reflexivity**<br>Personal Characteristics | |
| 1. Interviewer/facilitator | Which author/s conducted the interview of focus group<br><br>Samanthika Ekanayake page 9 |
| 2. Credentials | What were the researcher's credentials? *E.g. PhD, MD*<br><br>Samanthika Ekanayake, PhD<br>Farah Ahmad, PhD<br>Kwame McKenzie, MD page 1 |
| 3. Occupation | What was their occupation at the time of the study?<br><br>Samanthika Ekanayake- Post Doctoral Research Fellow<br>Farah Ahmad - Assistant Professor<br>Kwame McKenzie- Psychiatrist/ Professor page 1 |
| 4. Gender | Was the researcher male or female?<br><br>Samanthika Ekanayake- Female page 9<br>Farah Ahmad – Female<br>Kwame McKenzie- Male |
| 5. Experience and training | What experience or training did the researcher have?<br><br>All three researchers have post doctoral training in qualitative research and have published qualitative papers in peer reviewed journals. Page 10 |
| Relationship with participants | |
| 6. Relationship established | Was a relationship established prior to study commencement?<br><br>Participants were referred to the study by community mental health case workers or by answering an advertisement in the community mental health agency. Page 8 |
| 7. Participant knowledge of the interviewer | What did the participants know about the researcher? *e.g. personal goals, reasons for doing the research* |

| | |
|---|---|
| | Participants were informed about researcher' ethnic background, occupation and credentials. Also a description of purpose of the research was given with the study information materials. Page 8-9 |
| 8. Interviewer characteristics | What characteristics were reported about the interviewer/facilitator? *e.g. Bias, assumptions, reasons and interests in the research topic*<br><br>The Interviewer is a South Asian immigrant, woman page 9 |
| **Domain 2: study design**<br>Theoretical framework | |
| 9. Methodological orientation and theory | What methodological orientation was stated to underpin the study? *e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*<br><br>Thematic content analysis with some elements of grounded theory page 10 |
| Participant selection | |
| 10. Sampling | How were participants selected? *e.g. purposive, convenience, consecutive, snowball*<br><br>Purposive page 9 |
| 11. Method of approach | How were participants approached? *e.g. face-to-face, telephone, mail, email*<br><br>Participants were referred by case workers or answered and advertisement place at a community mental health centre, they were then approached face to face page 8-9 |
| 12. Sample size | How many participants were in the study?<br><br>There were 10 participants – page 11 |
| 13. Non-participation | How many people refused to participate or dropped out? Reasons?<br><br>There were no dropouts – page 11 |
| Setting | |
| 14. Setting of data collection | Where was the data collected? *e.g. home, clinic, workplace*<br><br>Participants were interviewed at the community mental health agency offices. Page 9 |
| 15. Presence of non-participants | Was anyone else present besides the participants and researchers? |

| | |
|---|---|
| | Participants were interviewed alone. Page 9 |
| 16. Description of sample | What are the important characteristics of the sample? *e.g. demographic data, date*<br><br>Participants were aged between 22-65 years of age. Seven women were born in India, two in Sri Lanka and one in Pakistan. Four women were Muslim, three Hindu and three Catholic. Two participants had university degrees, one had a high school diploma and all the other participants (7) had completed less than a high school education. None of the women were employed, and all were dependent on some form of income support from the government such as Ontario Disability Support Program (ODSP), Employment Insurance (EI), or the Old Age Security (OAS) program. Eight women were married, one was unmarried and the other was a widow. Two of the women had some history of mental illness other than depression. Page 11 |
| Data collection | |
| 17. Interview guide | Were questions, prompts, guides provided by the authors? Was it pilot tested?<br>A topic guide was used to direct the flow of the interviews. Page 9<br>The study was a pilot. |
| 18. Repeat interviews | Were repeat interviews carried out? If yes, how many?<br><br>No |
| 19. Audio/visual recording | Did the research use audio or visual recording to collect the data?<br><br>Interviews were taped and transcribed. Page 9 |
| 20. Field notes | Were field notes made during and/or after the interview or focus group?<br><br>Field notes were made during the interview. Page 10.<br>They were not included in this data analysis |
| 21. Duration | What was the duration of the interviews or focus group?<br><br>Interviews lasted 45-60 minutes page 9 |
| 22. Data saturation | Was data saturation discussed?<br><br>Recruitment was stopped when no new themes emerged. page 11. |

| | |
|---|---|
| 23. Transcripts returned | Were transcripts returned to participants for comment and/or correction?<br><br>Transcripts were not returned to the participants. |
| Domain 3: analysis and findings<br>Data analysis | |
| 24. Number of data coders | How many data coders coded the data?<br><br>All three authors involved in coding. Coding separately conducted by Samanthika Ekanayake and Kwame McKenzie and then it discussed with the research team. Page 10 |
| 25. Description of the coding tree | Did authors provide a description of the coding tree?<br><br>Table 1 presents the thematic framework of the themes. |
| 26. Derivation of themes | Were themes identified in advance or derived from the data?<br><br>Themes were identified from the data. Page 10 |
| | |
| 27. Software | What software, if applicable, was used to manage the data?<br><br>NVivo$_9$ qualitative data analysis software. Page 10 |
| 28. Participant checking | Did participants provide feedback on the findings?<br><br>Subsequent to writing the paper results were presented to some of the participants. But formal participant checking was not undertaken. |
| Reporting | |
| 29. Quotations presented | Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? *e.g. participant number*<br><br>Yes. Results section pages 12-19 |
| 30. Data and findings consistent | Was there consistency between the data presented and the findings?<br><br>We believe there is consistency between the presented data and the findings. |
| | |
| 31. Clarity of major themes | Were major themes clearly presented in the findings?<br>We have presented three major themes. : family and |

| | |
|---|---|
| | relationships; culture and migration; and, socio-economic Page 11 |
| 32. Clarity of minor themes | Is there a description of diverse cases or discussion of minor themes?<br><br>Within the major themes we have discussed as separate subheadings minor themes. Page 12-19 and in our thematic framework.<br><br>Individual and family (abuse, physical health, bereavement. Sexual infidelity, aging and isolation)<br>Culture and migration (stress divorce and separation, cultural distance, stigma, difficulties in the new country)<br>Socio-economic factors (economic difficulties, discrimination and racism) |