MEDDOCS Open Access Publisher

Journal of Psychiatry and Behavioral Sciences

Open Access | Research Article

Malays and eating disorders in Singapore: A potential ethnic risk in a Southeast Asian society

Netty Ryanie Binte Kamaruzaman[1,2]; Kelly Ann Zainal[2]; Tan Shian Ming[3]; Lee Huei Yen[2,3]; Victor Kwok Kah Foo[2,3]*

[1]*Speciality Nursing, Singapore General Hospital, Singapore*

[2]*Eating Disorders Programme, Singapore General Hospital, Singapore*

[3]*Department of Psychiatry, Singapore General Hospital, Singapore*

***Corresponding Author(s): Netty Ryanie Binte Kamaruzaman**

Nursing Division, Eating Disorders Programme, Singapore General Hospital, Outram Road, 169608, Singapore

Email: netty.ryanie.kamaruzaman@sgh.com.sg

Received: Mar 23, 2018

Accepted: Jun 05, 2018

Published Online: Jun 12, 2018

Journal: Journal of Psychiatry and Behavioral Sciences

Publisher: MedDocs Publishers LLC

Online edition: http://meddocsonline.org/

Keywords: Malay; Eating disorders; Singapore

Introduction

Eating disorders have traditionally been known to be a "Western" mental illness. Recent evidence has shown that although the prevalence rate of eating disorders in non-Western countries is still lower than that in Western countries, it has certainly been increasing [1]. Body dissatisfaction and disordered eating, factors associated with eating disorders, have been shown to be comparable to their counterparts in the West, or even higher [1-3]. Some scholars have reported that the shaping of the thin ideal is contributed by the "combined effects of modernization, urbanization, and westernization" [4]. In line with the Asian literature, Singapore has similarly witnessed an increasing incidence of eating disorders over the years [5-8]. In fact, it has also been found that prevalence of young females at risk of developing eating disorders is as high as 7.4% [5]. While current literatures, primarily based on Western populations, have enlightened clinicians on socio-demographic factors as well as risk factors for eating disorders, the issue of ethnicity has not been sufficiently explored.

Southeast Asia is a region comprising of countries, each

Cite this article: Kamaruzaman NRB, Zainal KA, Ming TS, Yen LH, Foo VKK. Malays and eating disorders in Singapore: A potential ethnic risk in a Southeast Asian society. J Psychiatry Behav Sci. 2018; 2: 1007.

populated by diverse ethnic groups that have retained their cultural roots while co-existing in harmony. The sociocultural influences that comes from this co-existence, in addition to Southeast Asians' growing receptiveness to Western influence, offer rich material to explore the impact of ethnicity in what was once conventionally conceptualized as a Western ailment. Singapore is a multicultural island nation with citizens from four main ethnic groups – Chinese (74.3%), Malay (13.3%), Indian (9.1%) and the last group consisting of all other ethnic groups (3.2%) [9]. In such societies in which modern and traditional cultures interplay, it is plausible that there may be ethnic differences in the risk and actual prevalence of eating disorders, as well as in clinical profiles. Several earlier studies have highlighted the need for a more in-depth understanding of the Malay population in the eating disorders literature as Malays have been highlighted as an ethnic group at risk.

In Ho et al.'s (2006) study of the prevalence of young females to be at risk of developing eating disorders, more Malays (13.1%) have been found to be at risk as compared to the Chinese (6.4%) and Indians (10.5%). Risk factors identified included being better educated with completion of the GCE "O" Levels, parents being less educated (below GCE "A Levels", and speaking the Malay language at home. This suggests that young females who are better educated than their parents may also be exposed to traditional or conservative Muslim culture at home, creating "sociocultural conflicts and stress", which may attribute to this higher risk of developing eating disorders.

A special interest has been generated for the Malay population in Singapore due to the conflicting findings found in previous studies. This is in contrast to other ethnic groups such as the Chinese population. In two previous studies, the authors found that Malays only made up 4.8% and 3% of the patients presenting with anorexia nervosa in two time periods 1994-2002 and 2003-2010 respectively [10,11]. Despite studies showing a higher propensity for Malays to develop eating disorders than the other ethnic groups, Malay patients made up the least percentage of new cases presenting with anorexia nervosa in Singapore's designated psychiatric unit [10].

A few factors pertaining to this discordance were discussed, including cultural protective factors, poor help-seeking tendencies, the lack of knowledge about the illness, as well as likely more Malays presenting with other diagnoses such as bulimia nervosa [10,11]. Studies from Malaysia have also supported the potential influence of culture and religion in guiding eating attitudes and behaviours of Malays [12-14]. However, there is scarce literature on Malays with eating disorders in the Asian context, and the conflicting findings remain unresolved, as this group has not received much attention previously.

We believe that the exploration of the role of Malay ethnicity in the development of eating disorders is crucial, as it may help us to advance our knowledge on the impact of sociocultural practices in psychiatric illness. In this study, we aim to explore the clinical characteristics and diagnostic distributions of the Malay patients diagnosed with eating disorders within our clinical settings and also explore the potential role of the Malay ethnicity in the risk and development of eating disorders. We hope to narrow the gap in the knowledge of this interesting population in Singapore by highlighting potential risk factors and implications for further research and educational efforts.

Methods

Data collection was conducted within Singapore General Hospital (SGH), which is the oldest and largest hospital in Singapore. It hosts the only specialized eating disorders treatment programme with both inpatient and outpatient care in the country and Southeast Asian region. Ethical approval to conduct this study was obtained from the SingHealth Institutional Review Board.

All Malay patients presenting to SGH between January 2003 and December 2014 were identified and their medical records studied retrospectively. A total of 42 patients were assessed and diagnosed by psychiatrists using DSM IV-TR criteria. Malays with eating disorder-like symptoms arising in the context of another primary psychiatric diagnosis were excluded. Data obtained include eating disorder diagnosis, psychiatric and medical comorbidities, family history of psychiatric illness, presenting symptoms, presence of deliberate self-harm, triggers, age at presentation, duration of symptoms, family conflicts, drug abuse, admission to inpatient treatment, source of referral and demographic factors (age, sex, highest education attained, marital status, housing types).

Statistical analysis was performed using the Statistical Package for the Social Sciences version 21.0 for Windows (SPSS Inc., Chicago, IL, USA). Comparisons between groups were made using independent *t*-tests or ANOVA for continuous variables and Chi-Square tests for categorical variables. For all analyses, statistical significance was set at $p < .05$.

Results

Malays constitute only 42 out of the 1340 (3.13%) patients who presented to SGH for treatment from 2003 to 2014.

As shown in Table 1, the mean age of presentation is 18.81 years (*SD*= 5.54) and the majority are students (78.6%). 39(92.9%) are single. There are only three males (7.1%). Most of the Malay patients (73.8%) reside in government housing. Almost half of the patients (22 out of 42) have parents who are working non-professionals and mothers who are housewives (48.8%).

Eating disorder symptoms were first noticed by the patients themselves (56.1%), followed by parents (26.8%), doctors (9.8%) and schools (7.3%). In terms of specific diagnoses, there are more cases of Bulimia Nervosa (BN) than Anorexia Nervosa (AN) (45.2% vs. 26.2%). The rest are ED-NOS (28.6%). 23 out of 42 (54.8%) patients have psychiatric comorbidities, the most common being major depressive disorder (31.0%). The other psychiatric comorbidities are few and far between. 38.1% have a history of deliberate self-harm and 21.4% attempted suicide. Family history of psychiatric illness was present in 31.0% of cases. 22(52.4%) patients reported teasing as a trigger, while 16.7% were triggered by being overweight. 14.3% of the patients received inpatient treatment due to the severity of their illnesses either on or after the first presentation or even during treatment in SGH.

Comparing the three diagnostic entities, namely Anorexia Nervosa (AN), Bulimia Nervosa (BN) and Eating Disorder-Not Otherwise Specified (EDNOS), patients with BN have the highest rate of self-harm (57.9%) compared to AN (18.2%) and EDNOS (25%), with the differences approaching statistical significance (p= .053). However, there is no statistically significant difference between the three groups in terms of history of suicide

attempt(s) (p= .314). Table 2 provides more details for these comparisons.

Discussion

While Malays constitute 13.3% out of the total Singaporean population, our findings have shown a small number presented to our treatment program. We were intrigued by how the apparent high risk of eating disorders that was established from Ho et al's study did not translate into a higher proportion of Malays presented in our clinical cohort [5]. Kuek et al. have cited several reasons for the small number of Malays in the anorexia nervosa clinical population, including cultural protective factors, poor treatment-seeking attitudes, the lack of knowledge about the illness, and the possibility that Malays might present with other eating disorder diagnoses [10].

Contrary to our findings, the existing literature points towards traditional Malay culture being a risk factor for developing eating disorders, which includes speaking the Malay language at home [5]. Two studies have also shown that body image dissatisfaction tends to be high among Malays [15,16]. However, the use of common screening tool, Eating Attitudes Test (EAT-26), same as those used in Ho et al.'s study [5], has received criticism as the screening items are not phrased well enough to capture the nuances of Malay culture. Participation in religious fasting may inflate EAT scores, especially on certain items. For example, three out of six items of which ethnic Malays scored higher than Chinese included, 'Feel extremely guilty after eating', "Give too much time and thought to food', and ' Avoid eating when I am hungry' [12]. Higher scores on these items may reflect a normal attitude towards eating among those who participates in religious fasting, and may not be indicative of a higher risk of eating disorders. Indran and Hatta also suggested that the EAT may have a cultural bias that inflates the EAT scores for adolescents in Malaysia who practise religious fasting [13]. Even if the screening tool is culturally appropriate, it still remains as a screening tool that is non-diagnostic. At most, it highlights vulnerable individuals in which, not all would necessarily go on to develop an eating disorder. However, the tool can help to highlight the actual rates of individual at risks of ED in the Malay community. This then begs the question of why the proportion in our clinical cohort is low.

It is possible that religious fasting masks some of the restrictive eating disorders symptoms and made them more difficult to spot. Hence, most of those who do seek treatment are those who have noticed the symptoms of eating disorders themselves and were self-referred. However, studies on the role of religious fasting give conflicting views where some studies have found that Ramadan fasting restrictions do not seem to affect the adolescents' eating patterns [12,17], and others argued that Ramadan fasting could trigger or exacerbate eating disorders in adolescents [18]. Hence, the role of religious fasting on eating disorders requires further exploration.

There is also a greater cultural acceptance of eating large amounts of food and being normal- or over-weight in the Malay culture [19]. However, our clinical cohort have reported more Malay patients diagnosed with BN than AN. The high prevalence of BN may be associated with the cultural and religious practices such as Ramadan fasting, eating large amounts of food and being either normal or overweight. These cultural and religious practices enable individuals to mask the symptoms of BN until symptoms became too severe and require medical attention. The ability to mask the ED symptoms of BN may contribute and encourage the increase of this type of ED in Malays and only seeking help when symptoms became severe. This corresponds to our findings in which they are only first presented for treatment when they are severely ill with high comorbidities and high self-harm rates, which urge patients or their families to seek medical attention.

In comparison with those suffering from AN, the warning signs of AN are more prominent for people to notice early before ringing the alarm for help, such as consistent restrictive eating resulting in drastic loss of weight.

Additionally, our low clinical cohort findings may be in line with the reasons which Kuek et al. has cited (10), [10], such as poor awareness, and knowledge about eating disorder symptoms and treatment options. As our clinical cohort tends to be those presented with severe symptoms and required medical attention upon initial presentation of illness, this implies that awareness of the mental health problem only surfaces when complications arise. The late presentation of illness is worrying, due to the complications of the illness which may result in death. Our clinical cohort also corresponds with Ho et al.'s study where those Malays at risk of AN came from lower socioeconomic status [5].

It has also been found that Malay psychiatric patients in Malaysia tend to seek treatment from traditional treatment before seeking psychiatric help [20,21]. Traditional treatments include traditional healers (*bomoh*), homeopathic practitioners and herbalists, which are often associated with religious beliefs [20,22]. Yeap et al. found that mental health literacy was found to be generally low in Malaysia, further encouraging more steps to be implemented to boost the public's knowledge of and attitude towards mental health and their treatment [21].

Our study suggests the need for outreach programmes to increase awareness for eating disorder detection and treatment within the Malay community. Firstly, we see a need to reduce the treatment gap for patients struggling with eating disorders who are not or have not sought treatment. Our results show that a small number of Malay patients presented to our treatment programme, in which majority of which picked up the illness by themselves, instead of being noticed by parents or others in the community. This suggests a lack of awareness in the community. Initiatives aimed at increasing eating disorder awareness in the Malay community should reach out to parents, teachers, counsellors, religious leaders, as well as common gathering places such as Muslim schools and mosques.

Another focus should be on primary intervention of eating disorders, aimed at reducing the occurrence of eating disorders in the community. A majority of our patients have identified comments and teasing from others as the main trigger for their eating disorders, which may indicate a greater need to educate the families, schools and community about the effects of teasing and positive body image.

Limitations of our study include the retrospective nature of data collection, as data obtained is subject to patient recall bias on first presentation and accuracy of documentation by clinicians. Our results were also collected from a single site and may not be generalizable across the country and region.

Our findings have helped to profile the Malay patient who may be diagnosed with an eating disorder in a clinical setting. She is a teenage student, single, and living in government-subsidised housing with her family. Her parents are more likely to

be in the lower socioeconomic group. Her eating disorder was triggered by teasing, and symptoms more likely picked up by self. She is likely to also present with depression together with a history of self-harm and attempted suicide with no alcohol or drug abuse. This new information provides a platform for future research to further enhance the current knowledge in the effect of ethnicity on eating disorders prevalence and development.

Tables

Table 1: Sociocultural and clinical variables of Malay eating disorder patients

	M (SD)	*Range*
Age	18.81 *(5.540)*	13 – 59
	N	%
Marital status		
Single	39	92.9
Married	2	4.8
Divorced	1	2.4
Gender		
Female	39	92.9
Male	3	7.1
Occupation		
Student	33	78.6
Professionals	2	4.8
Associate professionals and technicians	4	9.5
Admin/clerical work	1	2.4
Service workers/shop and market sales workers	1	2.4
Unemployed	1	2.4
Housing type		
Government subsidized housing		
- 3-room flat	5	11.9
- 4-room flat	12	28.6
- 5-room flat	14	33.3
Private housing		
- Executive/mansionette	5	11.9
- Semi-detached/terraced	1	2.7
Others (e.g., hostel)	1	2.7
Not specified	4	9.5
Father's occupation		
Deceased/unemployed	4	10.0
Professional	7	17.5
Associate professional/sales	9	22.5
Admin/clerk work	2	5.0
Service work/driver/coffeeshop	12	30.0
Mechanical	1	2.5
Retired	2	5.0
Self-employed/ businessman/ family business	3	7.5
Mother's occupation		
Deceased/unemployed	1	2.4
Professional	4	9.8
Associate professional/sales	4	9.8
Admin/clerk work	5	12.2
Service work/driver/coffesshop	5	12.2
Housewife	20	48.8
Self-employed/ businessman/ family business	2	4.9
First noticed by		
Self	23	56.1
Parents (no indicator)	8	19.5
Father	1	2.4
Mother	2	4.9
Doctor	4	9.8
School/school counsellor	3	7.3

Trigger		
Presence of trigger(s)	37	88.1
Being overweight	7	16.7
Comments/teasing from others	22	52.4
Dieting	6	13.4
School/work stress	5	11.9
Relationship	5	11.9
Peer pressure	0	0.0
Family	7	16.7
Health	1	2.4
Army	0	0.0
Gymnastics/ballet	0	0.0
Marathon training	0	0.0
Diagnosis		
Anorexia	11	26.2
Bulimia	19	45.2
Eating disorder-not otherwise specified	12	28.6
Psychiatric comorbidities		
Presence of any psychiatric comorbidity	23	54.8
Major depressive disorder	13	31.0
Obsessive compulsive disorder	2	4.8
Anxiety disorder	2	4.8
Personality disorder	0	0.0
Conduct disorder	0	0.0
Alcohol abuse	0	0.0
Substance abuse	1	2.4
Self-harm	16	38.1
Suicide attempt(s)	9	21.4
Family history of psychiatric illness	13	31.0
Premorbid obesity	11	26.2

Table 2: Comparisons between diagnoses (anorexia nervosa, bulimia nervosa and eating disorder-not otherwise specified) in Malay patients with eating disorder

	AN		BN		EDNOS		*p*
	N	*%*	*N*	*%*	*N*	*%*	
Premorbid obesity							
Yes	3	27.3	6	31.6	2	16.7	.652
No	8	72.7	13	68.4	10	83.3	
Deliberate self-harm							
Yes	2	18.2	11	57.9	3	25.0	.053
No	9	81.8	8	42.1	9	75.0	
History of suicide attempt(s)							
Yes	1	9.1	6	31.6	2	16.7	.314
No	10	90.9	13	68.4	10	83.3	
Excessive exercise							
Yes	3	27.3	8	42.1	4	33.3	.702
No	8	72.7	11	57.9	8	66.7	
Restrictive behavior							
Yes	11	100.0	15	78.9	9	75.0	.216
No	0	0.0	4	21.1	3	25.0	
Bingeing behavior							
Yes	3	27.3	19	100.0	6	50.0	.000**
No	8	72.7	0	0.0	6	50.0	
Purging behavior							
Yes	5	45.5	19	100.0	9	75.0	.002**
No	6	54.5	0	0.0	3	25.0	

Inpatient admission							
Yes	7	63.6	7	36.8	3	25.0	.154
No	4	36.4	12	63.2	9	75.0	
EDIT							
Yes	6	54.5	4	21.1	1	8.3	.033*
No	5	45.5	15	78.9	11	91.7	
Birth Rank							
First born	4	36.4	9	47.4	2	16.7	.381
Middle born	3	27.3	7	36.8	6	50.0	
Last born	4	36.4	3	15.8	4	33.3	
	M	*SD*	*M*	*SD*	*M*	*SD*	*p*
Number of psychiatric comorbidities	0.545	1.036	1.21	1.182	0.500	0.798	.119

*p< .05; ** p < .01

Conclusion

In conclusion, this study is the first of its kind that explore in-depth into the Malay population with clinically diagnosed eating disorders in Singapore. It provides further insights into possible factors affecting the low presentation of Malay patients to the eating disorder treatment facility. Taken together, these findings provide a better understanding of Malays with eating disorders, and platform to guide prevention, detection and treatment strategies for this group of patients. Further exploration could be done in eating disorder literacy and treatment-seeking behaviours in the Malay community, as well as to develop new initiatives to raise awareness for prevention and early intervention for vulnerable groups in the community.

References

1. Makino M, Tsuboi K, Dennerstein L. Prevalence of Eating Disorders: A Comparison of Western and Non-Western Countries. Medscape Gen Med. 2004; 6: 49.
2. Chen A, Mond JM, Kumar R. Eating disorders mental health literacy in Singapore: Beliefs of young adult women concerning treatment and outcome of bulimia nervosa. Early Interv Psychiatry. 2010; 4: 39–46.
3. Soh NL, Touyz S, Dobbins TA, Surgenor LJ, Clarke S, Kohn MR, et al. Restraint and eating concern in North European and East asian women with and without eating disorders in Australia and Singapore. Aust N Z J Psychiatry. 2007; 41: 536–545.
4. Swami V. Change in Risk Factors for Eating Disorder Symptomatology in Malay Students Sojourning in the United Kingdom. Int J Eat Disord. 2016; 695–700.
5. Ho TF, Tai BC, Lee EL, Cheng S, Liow PH. Prevalence and profile of females at risk of eating disorders in Singapore. Singapore Med J. 2006; 47: 499–503.
6. Kok LP, Tian CS. Susceptibility of Singapore Chinese Schoolgirls to Anorexia Nervosa - Part I (Psychological Factors). Singapore Med J. 1994; 35: 481–485.
7. Ong Y, Tsoi W, Cheah J. A clinical and psychosocial study of seven cases of anorexia nervosa in Singapore. Singapore Med J. 1982; 23: 255–261.
8. Ung EK. Eating disorders in Singapore: Coming of age. Singapore Med J. 2005; 46: 254–256.
9. Singapore Department of Statistics. Population Trends 2015. Department of Statistics, Ministry of Trade & Industry. Singapore. 2015.
10. Kuek A, Utpala R, Lee HY. The clinical profile of patients with anorexia nervosa in Singapore: a follow-up descriptive study. Singapore Med J. 2015; 56: 324–328.
11. Lee HY, Lee EL, Pathy P, Chan YH. Anorexia nervosa in Singapore: An eight-year retrospective study. Singapore Med J. 2005; 46: 275–281.
12. Edman JL, Yates A. Eating attitudes among college students in Malaysia: An ethnic and gender comparison. Eur Eat Disord Rev. 2004; 12: 190–196.
13. Indran SK, Hatta S, Mohamed S. Brief report: Eating attitudes among adolescent girls in a Malaysian secondary school using the EAT Questionnaire. Int J Soc Psychiatry. 1995; 41: 299–392.
14. McDowell AJ, Bond MJ. Body image differences among Malay, Samoan, and Australian women. Asia Pac J Clin Nutr. 2006; 15: 201–207.
15. Khor GL, Zalilah MS, Phan YY, Ang M, Maznah B, Norimah AK. Perceptions of Body Image among Malaysian Male and Female Adolescents Perceptions of body image among Malaysian male and female adolescents. Singapore Med J. 2009; 50: 303–311.
16. Mellor D, McCabe M, Ricciardelli L, Yeow J, Daliza N, Hapidzal NF bt M. Sociocultural influences on body dissatisfaction and body change behaviors among Malaysian adolescents. Body Image. 2009; 6: 121–128.
17. Erol A, Baylan G, Yazici F. Do Ramadan fasting restrictions. Eur Eat Disord Rev. 2008; 16: 297–301.
18. Akgül S, Derman O, Kanbur ON. Fasting during Ramadan: A religious factor as a possible trigger or exacerbator for eating disorders in adolescents. Int J Eat Disord. 2014; 47: 905–910.
19. Ahmad S, Waller G, Verduyn C. Eating attitudes and body satisfaction among Asian and Caucasian adolescents. Journal of Adolescence. 1994; 17: 461-470.
20. Razali SM, Najib MAM. Help-Seeking Pathways Among Malay Psychiatric Patients. Int J Soc Psychiatry. 2000; 46: 281–289.
21. Yeap R, Low WY. Mental health knowledge , attitude and help-seeking tendency : A Malaysian context Mental health knowledge , attitude and help-seeking tendency : a Malaysian context. Singapore Med J. 2009; 50: 1169–1176.
22. Haque A. Culture-bound syndromes and healing practices in Malaysia. Ment Health Relig Cult. 2008; 11: 685–696.