

# TREATMENT OF EATING DISORDERS AMONG ETHNIC MINORITIES IN WESTERN SETTINGS: A SYSTEMATIC REVIEW

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## SUMMARY

**Objectives:** This systematic review looked at the utilisation of treatment, access to treatment and referral of ethnic minorities for treatment of eating disorders in western settings. It also aimed to explore the barriers in access and utilisation of treatment including the role of acculturation.

**Methods:** The review included both qualitative and quantitative studies. The search identified a total of 2786 articles. Out of the 2786 articles, 12 articles (1 qualitative and 11 quantitative) were selected for the purpose of the research.

**Results:** The review showed that ethnic minority communities in UK and USA were far less likely to seek and receive treatment for their eating disorders and also less likely to be diagnosed and referred to eating disorder services or clinics for treatment of their eating disorders.

Referral bias of ethnic minority participants to specialist eating disorder services were found in three quantitative studies (Waller et al. 2009, Becker et al. 2003, Abbas et al. 2010).

The review also found that more acculturated ethnic minority participants were more likely to seek treatment for their eating disorders.

**Conclusion:** The above study has shown that ethnic minorities are less likely to have access to treatment for Eating Disorders.

**Key words:** eating disorders - ethnic minorities - treatment seeking - utilization of treatment – acculturation - barriers to treatment

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## INTRODUCTION

Eating disorders are abnormalities in the pattern of eating behaviour which are determined by an individual's perception to ideal body weight and image (ICD-10; DSM IV). The common types of Eating Disorders include Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder. Almost all those countries that had reported eating disorders prior to 1990 were European or North American. However, there is an increasing evidence to suggest that Eating Disorders is no longer confined to the Caucasian population; in the recent past, there have been many community studies that have revealed the prevalence of Eating Disorders among ethnic minorities in western countries (Bruce & Agras 1992, Cachelin et al. 1999, 2000, Crago et al. 1996, Fitzgibbon et al. 1998).

The differences in symptomatology of eating disorders between Caucasians and Ethnic minorities was studied by few researchers and these studies have concluded that the clinical characteristics of eating disorder patients representing minorities are not different from Caucasian patients (Anderson & Hay 1985, Hsu 1987, le Grange et al. 1997, Ratan et al. 1998). This in turn implies the fact that treatment protocols for eating disorders which are currently being applied to Caucasian population can also be applied equally to ethnic minorities without modification (Grange et al. 1997).

A widely held concept is that cultural factors play an important role in the initiation and perpetuation of eating disorders and also in treatment seeking (Gordon

2001). It is well founded that there are inequalities in access to or utilization of care or treatment among ethnic minorities for a variety of clinical interventions (Braveman, et al. 1996, Chen et al. 2001) including access to care for psychiatric services (Borowsky et al. 2000). Compared to Whites, individuals from ethnic minority groups are much less likely to seek treatment for psychological problems (Marin et al. 1983, Wells et al. 1988).

Acculturation is an important factor when examining eating disorders in women of different ethnicities (Nasser 1998). Acculturation has been defined as the process of cultural and psychological change that takes place as a result of contact between cultural groups and their individual members (Redfield et al. 1936). There is evidence to suggest that there may be a relationship between level of acculturation and treatment-seeking for psychological problems; for instance, acculturation level among Hispanics have a significant effect on counsellor trustworthiness' ratings (Pomales & Williams 1989).

The aims of this systematic review were to look at the utilisation of treatment for eating disorders among ethnic minority groups in western countries; access to treatment of eating disorders among ethnic minorities in western settings and to see if there is referral bias among clinicians for the treatment of eating disorders among ethnic minorities. It also aims to explore the barriers in accessing and utilising treatment and to find out if acculturation has a role in treatment seeking behaviour among ethnic minorities.

## METHOD

### Search Strategy

#### *Inclusion Criteria*

This review included papers published in English language that studied the referrals, treatment seeking and treatment utilisation of eating disorders in ethnic minorities in western settings. It also included papers that studied barriers to treatment seeking and treatment utilisation of eating disorders among ethnic minorities in western countries.

The types of eating disorders included in the study were:

- Anorexia Nervosa (AN), Bulimia Nervosa (BN), and Eating Disorders Not Otherwise Specified (EDNOS).

The different ethnic groups included in the study were:

- Black, Hispanic, Asian and White (Caucasians, Non-Latino whites, European Americans, European)

The review included both qualitative and quantitative studies done in western settings and all the studies had at least one ethnic minority group included. The study designs included were surveys, case control studies, cohort studies, observational studies and qualitative studies.

#### *Exclusion Criteria*

Studies where the participants were less than 16 years of age were excluded. Studies solely focussing on aetiology, psychopathology and symptomatology of eating disorders were excluded. Also any study done in the non-western countries was excluded.

#### *Selected Studies*

The literature search was conducted on all relevant multiple electronic databases, namely PubMed, PsychINFO, MEDLINE, CINAHL and EMBASE. Different combinations of the search terms were used to ensure extensive coverage of the review topic. Backward and forward citation tracking and cross referencing checking was made. The search identified a total of 2786 articles. The titles and abstracts were manually screened for relevance to the study title, design and inclusion and exclusion criteria. Out of the 2786 articles, 12 articles were selected for the purpose of the research as they matched the inclusion criteria. There was 1 qualitative study and 11 quantitative studies selected for the purpose of the systematic review. Articles that were solely based on the prevalence, etiology, psychopathology or symptomatology of eating disorders among ethnic minorities were not selected for this review.

### Data Analysis

Data Analysis see in table 1.

### Quantitative Studies

A total of eight studies (Cachelin et al. 2006, 2000, 2006, 2001, Marques et al. 2010, Nicdao et al. 2007,

Becker et al. 2010, 2003) compared Hispanic women with Caucasians, Asians or Black women with an eating disorder. Eight studies (Pike et al. 2001, Cachelin et al. 2000, 2006, Waller et al. 2009, Marques et al. 2010, Grilo et al. 2005, Becker et al. 2010, 2003) compared Black (African American, Afro-Caribbean) women with other Ethnic groups. There were a total of eight studies focussing on Asian population (Cachelin et al. 2000, 2001, Waller et al. 2009, Marques et al. 2010, Abbas et al. 2010, Nicdao et al. 2007, Becker et al. 2003, Becker et al. 2010) although the number of participants were small in these studies.

Although most papers included all types of eating disorders (Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder and Eating Disorder not otherwise specified), there were two studies (Pike et al. 2001, Grilo et al. 2005) which were based solely on Binge Eating Disorders.

There were a few studies which looked at Acculturation as a barrier to treatment seeking. Different studies used different acculturation measures and only one study (Cachelin et al. 2006) specified the reliability and validity of the acculturation questionnaire.

### Qualitative Studies

There was one qualitative study included in the review. This study used semi structured open ended interview to describe the experience in both seeking and receiving treatment and personal experience with ethnic or racial stereotyping in healthcare and other encounters. The researchers also used matrix function of NVivo to examine frequencies of these perceived social barriers occurring among the ethnic minority and non-minority study samples (Becker et al. 2010).

## RESULTS

All the studies included for the systematic review showed that the ethnic minority communities in UK and USA are far less likely to seek and receive treatment for their eating disorders. This takes into account that even the referral rate to Eating Disorder clinics was much lower for Ethnic minority groups.

The study by Cachelin et al. (2006) examined treatment seeking by comparing 76 Mexican American (MA) women and 69 European American (EA) women and found that significantly less number of Mexican Americans women sought treatment ( $\chi^2(1)=4.70$ ,  $p<0.03$ ) for their Eating Disorders. This study examined the barriers to treatment seeking in both groups and found that the barriers commonly expressed by both Mexican Americans and European Americans included feelings of shame, believing that one should be able to help oneself and believing one's eating problems is not so serious as to warrant treatment. The barriers unique to Mexican American group were: not knowing where to go for help and stigma or fear of being labelled as having an eating disorder.

**Table 1.** Papers included in the study

Study	Location	Participants	Evidence	Stat. Measures	Outcome
Cachelin et al. 2006	USA	76 MA; 69 EA participants	Cross-sectional	ANOVA Multivariate Analysis	Mexican women were less likely to be diagnosed as well as seek treatment for Eating Disorders.
Cachelin et al. 2000	USA	49 Hispanic, 21 Asian, 23 Black and 25 White (Total 118 cases) and 118 Controls	Case Control study	Chi Square Analysis	Less accultured Ethnic Groups were less likely to seek and receive treatment for their Eating Disorders compared with the more Accultured Ethnic Groups.
Waller et al. 2009	UK	648 Participants of White, Black, South Asian and other ethnic groups	Retrospective Cohort Study	Chi Square Analysis	Ethnic Minority groups were less likely to be referred for treatment of Eating Disorders.
Cachelin et al. 2006	USA	80 Mexican American and 110 European American women	Cross-sectional	t-test, Logistic Regression	Mexican American women were three times less likely to seek treatment for Eating Disorders compared with European American women.
Marques et al. 2010	USA	Latinos, Asians, African and Caribbean	Meta Analytic (Pooled data) study (CPES; NIMH 2007)	Chi Square, STATA, 8.0 Statistical software	This study showed less service utilization for Eating Disorders among different Ethnic Groups.
Grilo et al. 2005	USA	35 Black and 302 White women (Cases); 52 Black and 98 White women (Controls)	Case Control study	t-test	With Binge Eating Disorder, Black women had higher BMI compared to White women. Both Black and White women did not seek treatment until they are older and heavier.
Abbas et al. 2010	UK	95 Asian (4.6%) and 1975 Non-Asian (95.4%)	Retrospective case review study	t-test; Chi Square test	Less Asians were referred to Eating Disorder services in Leicester, UK and less likely to be diagnosed with Anorexia Nervosa compared with Non-Asian population.
Nicdao et al. 2007	USA	2095 Asian Americans (NLAAS study)	Cross-sectional	Bivariate analysis, Odds ratio, STATA software	Overall the treatment utilization for eating for Eating Disorders was small for Asian Americans.
Cachelin 2001	USA	61 Women (22 Hispanic, 8 Asian, 12 Black and 19 White)	Cross-sectional	Priori Analysis	Among the ethnic groups with Eating Disorders, more than a half of the women had made contact for treatment but majority of them did not receive any treatment for Eating Disorders.
Becker et al. 2010	USA	32 participants (4 African American, 3 Latino, 2 Asian-American; 3 Multiethnic and 20 White)	Qualitative study	NVivo 8 used for studying interview transcripts	Over half of the participants (n=19) reported personal experiences with shame or stigma that appeared to have an adverse impact on care and majority of them (78%) reported at least one social barrier to treatment access for any eating disorder.
Becker et al. 2003	USA	9,069 participants in Part 1 and 289 in Part 2 of the study	Cross-sectional	ANOVA, Odds Ratio, Logistic Regression analysis	Ethnic Minority participants were less likely to be referred for treatment and also less likely to seek treatment for Eating disorders.
Pike et al. 2001	USA	52 Black, 98 White cases; 150 controls	Case Control Study	Odds Ratio, Chi Square analysis	Black women were less likely than White women to receive treatment for an Eating problem.

MA= Mexican American; EA= European American; ANOVA= Analysis of Variance;  
 STATA= Data Analysis and Statistical Software; NVivo 8= Data Analysis software;

The study by Marques et al. 2010 reported that lifetime mental health service treatment utilization overall for any eating disorders (Anorexia Nervosa, Bulimia Nervosa or Binge Eating Disorder) was more among non-Latino Whites than for Latinos, Asians or African Americans (75.8% versus 61.65%, 63.22% and 62.21% respectively). However this study also showed that with respect to specific eating disorder diagnosis, Latinos and African American with a lifetime history of Anorexia Nervosa had (non-significantly) greater utilization of mental health services compared to non-Latino Whites.

The study by Pike et al. 2001 showed that black women with binge eating disorder were significantly less likely than white women with binge eating disorder to have been treated for an eating problem ( $\chi^2=5.16$ ,  $p<0.03$ ) (Odds ratio =2.52, 95% CI=0.99–6.34; relative risk ratio =2.9).

Referral bias of ethnic minority participants to specialist eating disorder services were found in the three quantitative studies - Ethnic minorities were less likely to be referred for treatment of eating disorders compared to Caucasians (Waller et al. 2009, Becker et al. 2003, Abbas et al. 2010).

The study by Becker et al. 2003 used logistic regression to show that “ethnicity” was a statistically significant variant in predicting whether a referral was made for treatment of eating disorders ( $\chi^2=12.589$ ,  $p=0.0275$ ; African-American Odds ratio (OR) =0.78 relative to Caucasians and Latino Odds ratio (OR) =0.687 relative to Caucasians). The study by Abbas et al. 2010 studied the referral rate for Asians across the whole of Leicestershire over a 15 year period compared this with the referral rate of non-Asians. This study found that the proportion of female Asian referrals was much lower than one might expect based on population alone.

### Acculturation and Eating disorders

In the study by Cachelin et al. (2000), the authors found a relationship between their acculturation variables and disordered eating- i) more acculturated women were significantly more likely to suffer from any eating disorder; ii) they were also more likely to seek treatment and iii) they were also more likely to receive treatment compared to the less acculturated women.

In another study by Cachelin FM, Striegel-Moore RH, et al. (2006), the degree of acculturation was a significant predictor ( $z=4.1$ ,  $p=0.04$ ) in seeking treatment among Mexican Americans; increasing the probability of seeking treatment by a multiplicative factor of 1.75. In other words, more acculturated Mexican Americans were twice as much likely to seek treatment for eating disorders compared to less acculturated Mexican Americans.

### DISCUSSION

It is evident that there is a dearth of research in the field of eating disorders among ethnic minorities in western settings. Maybe this is because it is still relatively a new concept that eating disorders could be as common among ethnic minorities as it is among the

Caucasians. All the papers selected for the review agree with the fact that both treatment-seeking and treatment receiving is quite poor among ethnic minorities compared to the Caucasian population. There is also less awareness among primary and secondary services to diagnose eating disorders and make appropriate referrals to the specialist eating disorder services. These findings imply that the health professionals need to be aware of the current needs of the ethnic minorities suffering with eating disorders. Moreover clinicians and researchers need to become more aware of the clinical symptomatology when working with ethnic minority women.

The main limitation of the studies included in the systematic review was that almost all the studies had a small sample representation of ethnic minority groups. This limits the statistical power of the study. Although most of the questionnaires used in the study were semi structured, not much information is given about the reliability and the validity of the tools. One study (Cachelin et al. 2006) mentions the validity and reliability of the tools in their paper. Moreover most of the tools used were self-reporting and hence subject to recall bias. Also the treatment history was recorded retrospectively which could again be subjected to recall bias.

In the studies done in USA, the method of recruitment in most studies (Cachelin et al. 2006, Cachelin et al. 2000) was via an advertisement, therefore prospective participants who deny their illness could have been missed out and the results may thus affect the validity

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