

Mass Media Exposure and Eating Pathology among Female Medical Students

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Received: July 26, 2019; **Published:** September 30, 2019

Abstract

Background: Social network media exposure conceivably influences behaviour independently of direct exposure, through imitation and social learning. Narrow amount of findings have been reported previously on social media along with mass media exposure and influence on eating pathologies among Indians. Due to the easy accessibility of devices for mass media and social media exposure this is a global issue that needs proper research.

Aim: To test the individual (direct) and social network (indirect) mass media exposure and its association with eating pathology in female medical students.

Methods: The total sample consists of 200 participants who are undergraduate females in Mamata Medical College, Khammam, Telangana. The samples will be drawn using convenience sampling method. Eating disorder Examination questionnaire (EDE-Q) and sociocultural attitudes towards appearance questionnaire-3 (SATAQ-3), will be the tools used.

Results: Pearson Co-relation test was done to see the co-relations between different parameters. P-value was set at significance of < 0.05. The global score of EDEQ is 1.5 for this study. There is significant correlation between EDEQ and SATAQ-3.

Keywords: Mass Media Exposure; Eating Pathology; EDEQ; SATAQ-3

Introduction

Eating disorders are associated with substantial morbidity and mortality [1]; the World Health Organization (WHO) has designated them a global priority area within adolescent mental health [2]. Major theoretical models propose a central role for social norms - established, in part, through the mass media - promoting 'thin ideals' and appearance-based social comparison as aetiological and maintaining mechanisms [3-5].

There is strong empirical support for the adverse impact of visual mass media on several behavioural health outcomes [6].

There is a wide range of support for the association of mass media exposure with body dissatisfaction and eating pathology but the newly emerging social network access and exposure which hasn't been persuaded can also be a major concern in relation to eating pathology.

Given the global access to visual mass media, there are compelling reasons for understanding the scope of, and mechanisms for, its effects on health.

Aims and Objectives

Aim: To test the mass media exposure and influence on female medical students and its correlation with eating pathology.

Objectives:

1. To study mass media exposure and its influence in the sample.
2. To screen for eating disorders in the sample.
3. To find correlation between mass media influence and eating pathology.

Study site

The study is conducted in Mamata Medical College, Khammam, Telangana.

Study period

The study was conducted from May 2018 to August 2018 with approval from ethics committee Mamata medical College.

Study type

Cross sectional study.

Study sample

200 female medical students were instructed to fill the questionnaires anonymously and were collected via drop box.

Inclusion criteria

Female medical students above the age of 18 who gave consent for the study.

Exclusion criteria

Male students and the female students who did not give consent for the study.

Tools

Eating disorder Examination questionnaire (EDEQ).

It is a 28 self reporting scale demonstrated adequate reliability and validity in English language [7]. In our analyses, eating pathology was measured as a continuous variable, with a higher score indicative of more severe eating pathology.

Sociocultural attitudes towards appearance questionnaire (SATAQ-3)

The SATAQ-3 is a 30-item measure of media influence upon endorsement of social appearance norms that includes subscales reflecting internalisation, pressures and information from media sources [8].

Procedure

A sample of 200 female medical students were given the self reporting questionnaire and were asked to answer it and return it with in the period of 1 week for data analysis. Mass media exposure is measured by collecting the personal electronic media exposure time (computed in hours per week). Indirect exposure by perceived by social network usage (social network media exposure). Mass media influence is calculated with SATAQ-3 and its subscales.

Data analysis

Statistical analysis was done using SPSS software for statistical analysis version 22. Socio-demographic data of the patients was obtained using convince sampling. Means and standard deviations were calculated for scales and subscales. Pearson Co-relation test was done to see the co-relations between different parameters. P-value was set at significance of < 0.05.

Results

Various results were obtained from the study.

Table 1 shows the socio demographic and anthropometric data with mean and standard deviations signifying that mean age in the given sample is 20.7, mean BMI at 22.6, personal television viewing time is 3.04 hours and time spend on social network and media is 2.88 hrs.

Variable	Mean	Standard deviation
Age	20.7	1.59
BMI	22.6	3.12
Personal television viewing time	3.04	2.15
Social network exposure	2.88	0.78

Table 1

Table 2 shows the global score of EDEQ as 1.5 and when the quartiles were calculated with following results first quartile is up to 0.67, second quartile up to 1.245, third quartile up to 2.07 and fourth quartile up to 4.35.

Mean	Standard deviations
EDEQ	
1.5	0.99
Quartile	Value
1 st	0.67
2 nd	1.245
3 rd	2.07
4 th	4.35

Table 2

Table 3 consists of results related to all the four variables of SATAQ-3. Table 4 shows correlation between EDEQ scores and SATAQ-3 subscales. For both general and pressure variants the value is less than 0.0001.

Variable	Mean	Standard deviation
General	23.89	5.48
Athlete	13.42	3.63
Pressure	17.51	5.093
Information	26.38	5.91

Table 3

	P Value	R Value
General	< 0.0001	0.25
Athlete	0.9154	0.16
Pressure	< 0.0001	0.26
Information	0.002	0.18

Table 4

Table 5 shows the correlation between EDEQ and mass media exposure and BMI where p-value is 0.0317

	P Value	R Value
BMI	0.0317	0.15
Social media exposure	0.01	0.38

Table 5

Discussion

In the total sample of 200 females the age ranged from 18 to 23 years where the mean age is 20.7. As the sample is taken in a medical College the age variation is limited for the study and also the targeted population is specifically adolescent females the age variation in the sample is restricted and age remained independent from the EDEQ scores and mass media exposure.

BMI of the collected Samples ranged from 16 to 32.26 with mean of 22.6 and SD of 3.21. The percentage of under weight in the sample is 8% and overweight 28% and obese is 3%. Hence there is more prevalence of overweight in the given sample. The correlation between fourth quartile values of EDEQ and BMI is calculated through Pearson’s correlation where r value is 0.15 and p value is 0.031 which signifies correlation between the BMI and higher scores of EDEQ. Inferring that the higher scores of EDEQ can potentially increase the risk of subjects presenting with eating disorder which has been proven to increase the risk of overweight and obesity.

As the College is located in Khammam an urban location in Telangana the whole sample comes under The urban location. This variable was independent from any EDEQ and SATAQ-3 scale. Therefore, there is no relation between demographic variants and eating pathology in the following study.

Mass media exposure and its correlation to eating disorders has been an topic for discussion for large number of studies but the influence hasn’t been explained on lot of studies. In this study the mass media exposure (r value =0.38 and p value < 0.01) and the social network exposure (r value-was significantly associated with 3rd and 4th quartile of EDEQ (r value = 0.12 p value- < 0.01) have correlation to global scores EDEQ. Signifying that there is increased risk of eating pathology for the subjects who have higher mass media and social network exposure.

For the EDEQ the global score is 1.5 and the forth quartile value is 4.35 the higher the value of the score signifies the higher the severity of eating pathology.

The social media influence is calculated as 4 subscales Of SATAQ-3 where the pressure variable showed higher influence To eating disorder except the athlete variable all the three variants have shown significant correlation to Eating pathology. This denotes that the higher the social media influence the higher the risk of subject encountering an eating disorder. Through social network and mass media a lot of sources like models, social media influencers, advertisers have been altering the young on how they perceive themselves which is widely increasing the risk of body dysmorphic disorder and eating disorders. Our study specifically proves the increase mass media and social network exposure and influence on adolescent females has increased prevalence of eating pathology in the given sample independent of the age.

Review of Literature

Bissell and Rask, 2010; Cash and Pruzinsky, 2002; Cash., et al. 2004; Grogan, 2008; Hargreaves and Tiggemann 2004; Jung., et al. 2001; Kim and Lennon, 2007) these studies signified exposure to thin-idealized female model images in mass communication sources, which had negative influence on women specifically on young populations.

Body images difficulties such as body image related anxiety, body dissatisfaction, depressed mood, or low self esteem were (Bessenoff, 2006; Dittmar and Howard, 2004; Grabe, Ward, and Hyde, 2008; Halliwell and Dittmar, 2005; Hargreaves and Tiggemann, 2004; Heron and Smyth, 2013; Kim and Lennon, 2007; Stice and Shaw, 1994; Yu, 2014) influenced through self-disparity (Ahadzadeh, Sharif, and Ong, 2017; Bessenoff and Snow, 2006; Dittmar, Halliwell, and Stirling, 2009).

In an other study (E Stice, HE Shaw - *Journal of Psychosomatic Research*, 2002) it was found that increased compulsion to look lean, thin-ideal internalization and increased body mass, increase the prevalence of concurrent body dissatisfaction.

In all the above studies there is strong association between social media and mass media exposure and negative influence on female mental health our study supports their inferences but also specifies the influence of mass media on eating disorders particularly in adolescent females.

Drawbacks

- The clinical relevance of our categorical measure of eating pathology, based upon sample upper-quartile global EDE-Q scores, is not fully established. However, the EDE-Q is a widely accepted and gold-standard measure of disordered eating and has demonstrated construct validity as a dimensional measure of eating pathology in this study sample.
- No demographic variation in data as the sample is collected from one College.
- Assessment was cross sectional and not blind.

Conclusion

We observed a significant association between social network mass media exposure and influence on eating pathology in the sample. The higher the exposure and influence the greater the risk for eating disorders.

social network media exposure is also associated with a higher level of eating pathology.

Implications

Notably, our finding that social network media exposure is associated with eating pathology resonates with empirical evidence that health behaviours relating to obesity may be spread by social ties [9], with data linking social network and individual eating attitudes and behaviours [10], and with concerns that the impact of media exposure may be substantial [11]. In addition to suggesting that social network media exposure may be an appropriate target for intervention, there are potential health implications raised by identification of second-hand health risk. Which infers that further research is specifically needed for this particular problem.

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Volume 8 Issue 10 October 2019

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