#### **ORIGINAL ARTICLE**

## **Print And Electronic Media: Cause Of Depression**

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Abstract

Objective: To assess depression in normal people and associate it with print and electronic media of Pakistan.

Methodology: The study was descriptive, cross-sectional and conducted from July to November 2011. Three hundred and twenty men and women, with age range of 20-70 years were included in study following informed consent. A structured questionnaire with five items of Yes and No category relating media to depression was used. To assess the severity of depression Zung self-rating depression scale was used. Subjects with score of 80-90 were excluded as this score is of clinical depression. Data analysis was done by SPSS version 13.0. Pearson Chi-square was applied with p<0.01 considered statistically significant.

Results: Depression was seen in 55 % of subjects on reading newspaper. Watching television caused depression in 59.7% (p<0001). In 68% subjects daily routine life was disturbed (p<0.01). The highest rate of depression 32.6% was due to watching political news, while 28.3 % were by photographs and visuals of dead bodies and 24.6% by news of terrorism. Prevalence of mildly and moderately depressed individuals was 56.3 % and 15.8% respectively.

Conclusion: Reading newspaper and watching television causes depression. The content of news on media in particular leads to depression.

**Key words:** Media, depression, depression scale

#### Introduction

Depression is a state of low mood and aversion to activity. Depressed people suffer from common symptoms of mood disorders including feeling of sadness, irritable, restlessness and many lose interest in activities that once were pleasurable. In extreme cases of depression few even contemplate or attempt suicide<sup>1</sup>. Evidence suggests that psycho-social stress precedes the onset of depression<sup>2</sup>. In recent years prolonged exposure to media has been attributed as the leading cause of depression<sup>3</sup>

In Pakistan, mental health services have not kept pace at a satisfactory level as compared to other health related fields<sup>4</sup>. Also patients with symptoms of mental disorders avoid seeking professional help. One reason for this is that several myths are attached to these illnesses.

Media has a major impact on promoting a positive image of mental patients but somehow discussions on mental illnesses by non-professionals on the media has lead to deception and distortion creating abhorrence

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Symptoms of depression are assessed by various methods; such as depression rating- scales compiled by renowned psychiatrists but have to be administered by trained and professional observers.

The present study utilized Zung self-rating scale of depression to assess the severity of depression 9 if depression is present in apparently normal individuals and relate depression with print and electronic media.

about patients with mental disorders 4. The influx of TV channels accessible to person at all ages and brackets with sometimes un-ethical and un-authentic opinions need urgent attention<sup>4</sup>. Media exposures have been linked to the presence of psychiatric conditions, but few studies have investigated the association between media exposure and depression<sup>3, 5.</sup> Television exposure and total media exposure in adolescence are associated with increase odds of depressive symptoms in young adulthood, especially in young men.

There are several possible ways by which media exposure enhance the risk of depression, the long time spent in watching Television could be used in socializing, or participating in sports whether indoor or outdoor or engaging in intellectual activities - all of which may protect against depression. Watching TV at night may disrupt sleep, which is important for normal brain and emotional development<sup>7</sup>. Message transmitted through the media may reinforce aggression and other risky behaviors interfere with identity development or inspire fear and anxiety<sup>6, 7</sup> Depression is the most common psychiatric illness in the world, affecting 15 percent of all people at some point in their lives. Although about 70 percent of the depressed patients respond to treatment, three-fourth will experience a recurrence of their illness within 10 years, in addition an estimated 60 percent of the depressed people remain undiagnosed and untreated 8

The response of Pakistan's electronic media to disturbing news of violence, disasters within and outside Pakistan has led to increase number of hours of public exposure to television. We decided to undertake a study on determining the effect of media on the minds of Pakistani population.

#### **Material and Methods:**

This descriptive and cross sectional study was conducted from July to November 2011 at Liaquat National Hospital and Medical College. The study subjects were randomly selected from the general population. Informed consent was obtained. Three hundred and twenty apparently healthy subjects (52.5 % male and 47.8% females) with age ranging from 20-70 years, having no physical illness, were included in A structured questionnaire especially the study. designed and tested for the study was administered. The questionnaire included five items of Yes and No category on use of media and media effects on Zung self-rating scale was used for depression. assessing severity of depression among men and women. <sup>10</sup> Subjects with score of 80-90 were excluded from the study as this defines clinical depression and patients with diagnosed depression are presented with psychological and somatic symptoms<sup>11</sup>

## Statistical analysis:

Data analysis was done by using SPSS version 13.0. Pearson Chi-square test was applied to observe rate of depression with different parameters. The value of P<0.01 was considered statistically significant.

### **RESULT:**

In 320 apparently healthy subjects included in the study, 52.5 % were males and 47.8% females. Response of subjects on use of print and electronic media is given in (Table 1) which shows that 84.4% read newspaper daily, 55.3% read English newspaper, while 33.4% read national language Urdu newspaper. In our study group 93.8% watched Television regularly. Responding to specific television programs, 19.4% watched sports program, 31.3% television dramas, 25.6% movies, 15.0% news, 6.6% current affairs and 2.2% religious programs. On reaction to watching depressing news, 68.8% switched to entertainment channels, 20% switched to other news channels and 11.2% switched off TV. There were 40.6% people feeling depressed by watching Talk Shows. Fifty five percent people said that reading newspaper caused depressed feeling, while 45% were indifferent, they did not feel depressed. The difference on Pearson Chi-square was significant p<0.001 (Table II). Sixty eight percent indicated that depression was causing disturbance in their daily routine life while 32% were not affected (p<0.01) (Table II). Table III shows prevalence of depression amongst subjects which gave results as mildly depressed, 56.3 %,

moderately and severely depressed 5.8 % and 1.6 % respectively while 26.3 % were not at all depressed. Table IV shows various types of news causing depression; natural disaster has 8.2 %, news of terrorism 24.6%, social news 6.3 %, photos and visuals of dead bodies 28.3 % and political news 32.6 %

Table I: Response of subjects on use of Print and Electronic media

Electronic media		
Question	Yes % n= 320	No % n= 320
Do you read newspaper?	84.4	15.6
Which newspaper do you read? a) English b) Urdu c) Sindhi d) Misc.	55.3 33.4 2.8 1.9	NA
Do you watch TV?	93.8	6.2
What type of programs do you usually watch? a) Sports b) Drama c) Movies d) News e) Current affairs f) Religious	19.4 31.3 25.6 15.0 6.6 2.2	NA
What is your reaction after watching depressing news? a) Switch off TV b) Switch to other entertainment channels c) Switch to other News channels	11.2 68.8 20.0	NA
Do you get depressed after watching talk shows?	40.6	59.4

Table II: Effect of Media on depression

	Yes	No	
Question	%	%	P – value
Do you get depressed after reading newspaper?	55	45	P<0.001
Do you get depressed after watching TV News?	59.7	40.3	P<0.001
Do you think this depression is affecting your daily routine?	67.5	32.5	P<0.01

Table III: Prevalence of depression:

n=320	%
No depression	26.3%
Mild depression	56.3%
Moderate depression	15.8%
Severe depression	1.6%

Table IV: Types of news causing depression

Types of news	%
Natural disaster	8.2 %
News of terrorism	24.6 %
Social news	6.3 %
Photos and visuals of	28.3 %
dead bodies	
Political news	32.6 %

## **Discussion:**

Depression is a figurative and literal killer<sup>12</sup>. Biochemically depression is associated with a decrease in brain—derived neurotrophic factor (BDNF), which was the second factor to be identified after Nerve Growth Factor (NGF) <sup>13</sup>. BDNF in the brain is active in hippocampus, cortex, and basal forebrain- areas vital to learning, memory and higher thinking. <sup>13</sup> BDNF itself is important for long—term memory <sup>13</sup>. There is also an increase in oxidative stress, glucocorticoids and inflammatory cytokines <sup>14</sup>. An increase of glucocorticoids decreases the expression of BDNF, which eventually leads to atrophy of hippocampus, and

other limbic structures<sup>14, 15.</sup> Thus an etiological link exists between depression and BDNF <sup>15</sup>.

Media exposure has since long been linked with depression. World Health Organization (WHO), reports that the relationship between media exposure and depression is the leading cause of morbidity worldwide and is very common in adolescence<sup>16</sup>. In developing countries like Pakistan, 1% of the population suffers from severe and 10 % from mild mental disorders <sup>17</sup>

The present study observed that of 320 participants, 93.8% watched television. Moreover, depression caused by television exposure is not gender specific as 52.5% males and 47.8% females were affected (Table I). In previous study, an excessive exposure to TV in teens has been linked to an increased risk for depression in early adulthood 18

Electronic media not alone is a cause of depression, the print media content as well has contributed to depression.

Recently, in Pakistan, several new newspapers have emerged in English, national and regional languages. Similarly, the influx of private television channels has been a leading factor in shaping population opinions on political, social events and changes in values and behaviors.

However, the content of both print and electronic media has raised concerns in general public. In view of Pakistan's security concerns, several incidents of violence including terrorist attacks have dominated both print and electronic media. Social activists, parents, psychologists and psychiatrists have severely criticized news channels for repeatedly reporting news of violence and criminal activities along with portraying images of blood, and dead bodies<sup>19</sup>. This study confirms that people get disturbed on watching news and 68.8% switch to other entertainment channels, 20% to other news channels while only 11.2% switch off the television.

The present study confirms that amongst print media about 84.4% read newspaper everyday (Table I). A high rate of depression was found among those who read newspaper and the result was significant (p<0.001, Table II). Findings of another study on teens exposed to long hours of watching TV reported that teenagers are at high risks for depression as do adults<sup>19</sup>. Our study subjects had age range 20-70 years both teenagers and adults, and the result is in agreement with the previous study on watching TV and feeling of depression <sup>16,18</sup> (p<0.001, Table II). The depression caused by TV watching was affecting daily routine life and was significant (p<0.001, Table II).

Dr Primack's theory on relating media with depression has categorically identified several bad news, depressing events shown on TV and repeated exposures as the root cause of depression that lead to internalization in viewers<sup>3</sup>.

The present study reported 28.3% were depressed on watching photographs and visuals of dead bodies, while 32.6% felt depressed on watching political news. (Table IV) These findings are in agreement with Dr Primack's theory. The high rate of depression on hearing political news is a major problem relevant to the context of Pakistan.

According to Human Right Commission of Pakistan (HRCP) report 34% of the country's population suffered from some form of mental illness<sup>4</sup>. The Mental Health Ordinance of Pakistan promulgated on 20<sup>th</sup> February 2001, has yet to be implemented.<sup>4</sup>

In a national longitudinal survey of adolescent health, investigators looked at the relationship between electronic media and exposure in 4142 adolescents who were not depressed at baseline, but subsequently developed depression on 7-year follow up study of 4142 adolescents, 308 (7.4%) reported symptoms consistent with depression, and researcher found these individuals had watched more television than non-depressed individuals at baseline, 2.64 hours against 2.28 hours per day. This association was statistically significant<sup>3</sup>

A study correlated the duration of watching TV with depression and found that people who watched TV less than three hours a day were less depressed than those who watched more than nine hours a day<sup>19</sup>. Study on youth and media use on an average of 7 hours per day reported that using media (TV, computer, internet, video games, and cell phones) had a negative effect on its user<sup>2</sup>. Prolonged hours of television and computer related exposure facilitate individual activities rather than sharing common social interests and activities<sup>20, 21</sup>. The limitation of this study is that it focused on news and related activities.

Based on Zung scale of depression our results indicated that the prevalence of depression among the subjects was mild in 56.3%, moderate 15.6% and severely depressed 1.6% (Table III).

## **Conclusion:**

Media particularly the content of both print and electronic has relationship with depression. This study reveals that reading of newspaper and watching TV News cause depression.

## **Recommendations:**

Concentrated actions are required from all stakeholders including parents, educational institutions to encourage youth to develop interest in outdoor activities such as sports, educational trips, library visits, and social activities. Even adults need to engage in activities that will restrain them from unnecessarily exposure to prolonged hours of television news that lead to depression. Further large cross sectional studies

are needed to find out the correlation of media with depression.

#### References

- 1. Mood disorder [internet]. 2012 [cited 2012 Jan 10]. Available from:
  - http://en.wikipedia.org/wiki/depression\_mood
- Freeman D A.Electronic media increases depression in Teen?
   [Internet].2009 [updated 2009 Feb 3; cited 2011 Dec 10]. Available from:
   http://www.alatechsource.org/blog/2009/02/videogames-increase depression-in- Teens.html
- Primack B A, Swanier B, Georgiopoulos A M, et al. Association between media use in adolescence and depression in adulthood: A longitudinal study. Arch Gen Psychiatry 2009; 66 (2): 181-8
- Afraid M I. Mental health: Priorities in Pakistan. J Pak Med Assoc 2008; 58(5): 225-6
- Reinherz HZ, Giaconia RM, Hauf AM, et al. Major depression in the transition to adulthood: risks and impairments. J Abnorm Psychol 1999; 108(3): 500-10
- 6. Biddle SJH, Asare M. Physical activity and mental health in children and adolescents: A review of reviews. Br J sports Med. 2011; 45: 886-95
- 7. Van den Bulck J. TV viewing, computer game playing, and internet use and self-reported time to bed time and time out of bed in secondary –school children. Sleep. 2004; 27 (1):101-4
- 8. Gutowski I. Long term effects of untreated depression [internet].2011[updated 2011 Jun25; cited 2011 Dec 10]. Available from: http://www.Livestrong.com/article/69705-longterm-effects-untreated-depression/
- 9. Zung WWK. A self –rating depression scale. Archives of Gen Psychiatry 1965; 12:63-70
- 10. Carroll BJ, Fielding JM, Blashki TG. Depression rating scale. A critical review. Archives of Gen Psychiatry 1973; 28: 361-6
- 11. Tylee A, Gandhi P. The importance of somatic symptoms in depression in primary care. Prim Care Companion J Clin Psychiatry. 2005; 7(4): 167-76
- 12. Biased public health Perspective on depression treatment: Media bias on publication bias. (letter to editor). Am J Psychiatry 2009; 166: 934-5
- 13. Post RM. Role of BDNF in bipolar and unipolar disorder: Clinical and theoretical implications. J Psychiatr Res. 2007; 41: 979-90
- Bekinschtein P, Cammarota M, Katche C et al.BDNF is essential to promote persistence of long-term memory storage. Proc Natl Acad Sci USA 2008; 105(7): 2711-6

- 15. Yamada K, Nabeshima A. "Brain derived neurotrophic factor/ TrkB signaling in memory processes". J Pharmacol Sc 2003; 91(4):267-70
- Cassel C. Excessive TV exposure in teens linked to depression in adulthood [internet]. 2009 [cited 2011 Dec 12]. Available from: Medscape Medical News.2009http://www.medscape.com/viewarticle/587896 htm
- 17. Cheema F, Kalra G and Bhugra D. Globalisation and Mental Health: Context and Controversies Journal of Pakistan psychiatric society (JPPS). 2010; 7 (2): 55-62
- 18. Pagani LS, Fitzpatrick C, Barnett TA et al.. Prospective associations between early

- childhood television exposure and academic, psychosocial and physical well-being by middle childhood, Arch Pediatr Adolesc Med. 56:477-892010; 164 (5): 425-31
- 19. Bushman BJ, Anderson CA. Media violence and the American public scientific facts versus media misinformation. Am Psychol 2001; 56:477-89
- 20. Black D, Newman M. Television violence and children. BMJ; 1995; 310: 273-4
- Bakalar N. Behavior: TV time linked to depression in future The New York Times [Internet]. 2009 [cited 2011 Dec 15]. Available from:
  - http://www.Nytimes.Com/2009/02/10/health/research/10behav. htm