

The Role of the Media in Shaping Public Opinion Surrounding Prescription Drug Use to Treat Depression and Anxiety among Children

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ANHCS

Background

Anxiety affecting 13% of youth; often accompanied by a secondary disorder such as depression (U.S. Department of Health and Human Services)

SSRI – Suicide controversy - Mixed Findings

- Inverse relationship with suicide risk and rates (Olfson, Shaffer, Marcus, Greenberg, 2003; Gibbons, Hur, Bhaumik, Mann, 2006; Shaffer, 1999; Isacson, 2000)
- Increased suicidal behavior and ideation (Olfson, Marcus, Shaffer, 2006; Hammad, Laughren, Racoosin, 2006)

Current study does not examine benefits and risks of different treatments for anxiety and the debate surrounding SSRI. Focuses rather on the role of exposure to DTCA on public opinion surrounding the use of prescription drugs to treat depression and anxiety among youth.

Background

- Proliferation of DTCA – 30 hours of prescription drug television advertisements reach average American television viewer per year (Brownfield, et al., 2004)
- Controversy and debate surrounding effects of DTCA
 - Educational value (Monaghan, et al., 2003; Holmer, 1999) and increased awareness (Sorofman, 1992)
 - Inaccurate and misleading information (Woloshin, Schwartz, Tremmel, Welch, 2001; Frosch, et al., 2007) adverse effect on physician-patient relationship (Woloshin, et al., 2002; Bell, Wilkes, Kravitz, 1999; Bell Knravitz, Wilkes, 1999; Lipski, Taylor, 1997; Hogle, 2002; Pirisi, 1999)
- Assumption - DTCA reviewed by FDA and information is accurate (Singh, Smith, 2005; Bell, Kravitz, Wilkes, 1999)
- Attitudes predict consumptive behaviors (Herzenstein, et al., 2004; Desphande, et al., 2004)

Hypotheses

- H1: Exposure to advertisements for prescription drugs to treat depression or anxiety will be positively associated with support for use of antidepressants to treat children and youth diagnosed with depression.
- H2: Attitudes toward direct-to-consumer advertisements for prescription drugs will mediate the relationship between exposure to advertisements for antidepressants and support for the use of antidepressants to treat children and youth diagnosed with depression or anxiety.

Methods

- Annenberg National Health Communication Survey (June – July 2007)
- Nationally representative cross-sectional sample (18 years and older)
- N = 402
- Recruitment through list-assisted random-digit-dialing methods
- Average response rate was 31%.
- Post-stratification weights were created to adjust for nonresponse and noncoverage areas.
- Weights created based on Current Population Survey (CPS) data (adjusting for age, gender, race, education, internet access)

Measures

Demographics:

Age; Gender; Employment status; Marital status; Race / ethnicity; Income; Education; Children in household (aged 6 to 17)

Covariates:

- History of anxiety disorder or depression (personal and familial)
- Perceived use of prescription drugs among participants' close contacts
- Knowledge about prescription drug use & source of knowledge (mediated source or other)
- General attitudes about direct-to-consumer advertising
- Exposure to Television
- Exposure to other media (newspaper, radio talk shows/news, and the Internet)

Independent variable:

Exposure to direct-to-consumer advertising for prescription drugs to treat anxiety and depression

Dependent variable:

Support for the use of anti-depressants as a preferred treatment for youth

Results

Table 1. Demographic characteristics of sample (n=402)

Demographic characteristic	n	Percent
Female	215	53.5
Race/ethnicity		
White	322	19.9
Non-White	80	80.1
Education		
Less than high school	29	7.3
High school	122	30.35
College and above	251	62.4
Age		
18-29	51	12.7
30-44	123	30.6
45-59	112	27.9
60+	116	28.8
Marital Status		
Married	240	59.7
Employment status		
Employed	229	57.0
Parent of child aged 6 to 17	87	21.6
Has/ had anxiety disorder	50	12.4
Has/had depression	81	20.1

Table 2. Distribution of covariates in analysis (n = 402)

Variables	n	Percent
Exposure to Television		
0 to 3 hours per day on average	106	26.4
3.1 to 4.5 hours per day	64	15.9
4.6 to 6.5 hours per day	77	19.1
6.6 to 10 hours per day	79	19.7
10.1 to 24 hours per day	76	18.9
Exposure to other media (printed and Internet)		
0 days to 1.8 days per week on average	83	20.7
1.9 to 2.8 days per week	92	22.9
2.9 to 3.6 days per week	74	18.4
3.7 to 4.6 days per week	74	18.4
4.7 to 7 days per week	79	19.6
Knowledge of drugs for anxiety / depression		
Knows from ads and/or other sources	47	11.7
Knows from other sources only	355	88.3
Knows someone who uses/d drugs for anxiety	226	56.2
Knows someone who uses/d drugs for depression	267	66.4

Table 3. Distribution of principle variables (n = 402)

Variables	n	Percent
Exposure to DTC ads in past 30 days		
No ads	64	16.0
1 to 2 ads	132	32.8
3 to 4 ads	93	23.1
5 or more ads	113	28.1
Attitude toward DTC ads		
Positive	155	38.6
Negative	247	61.47
Support for use of drugs to treat Anxiety / depression among youth		
	240	59.7

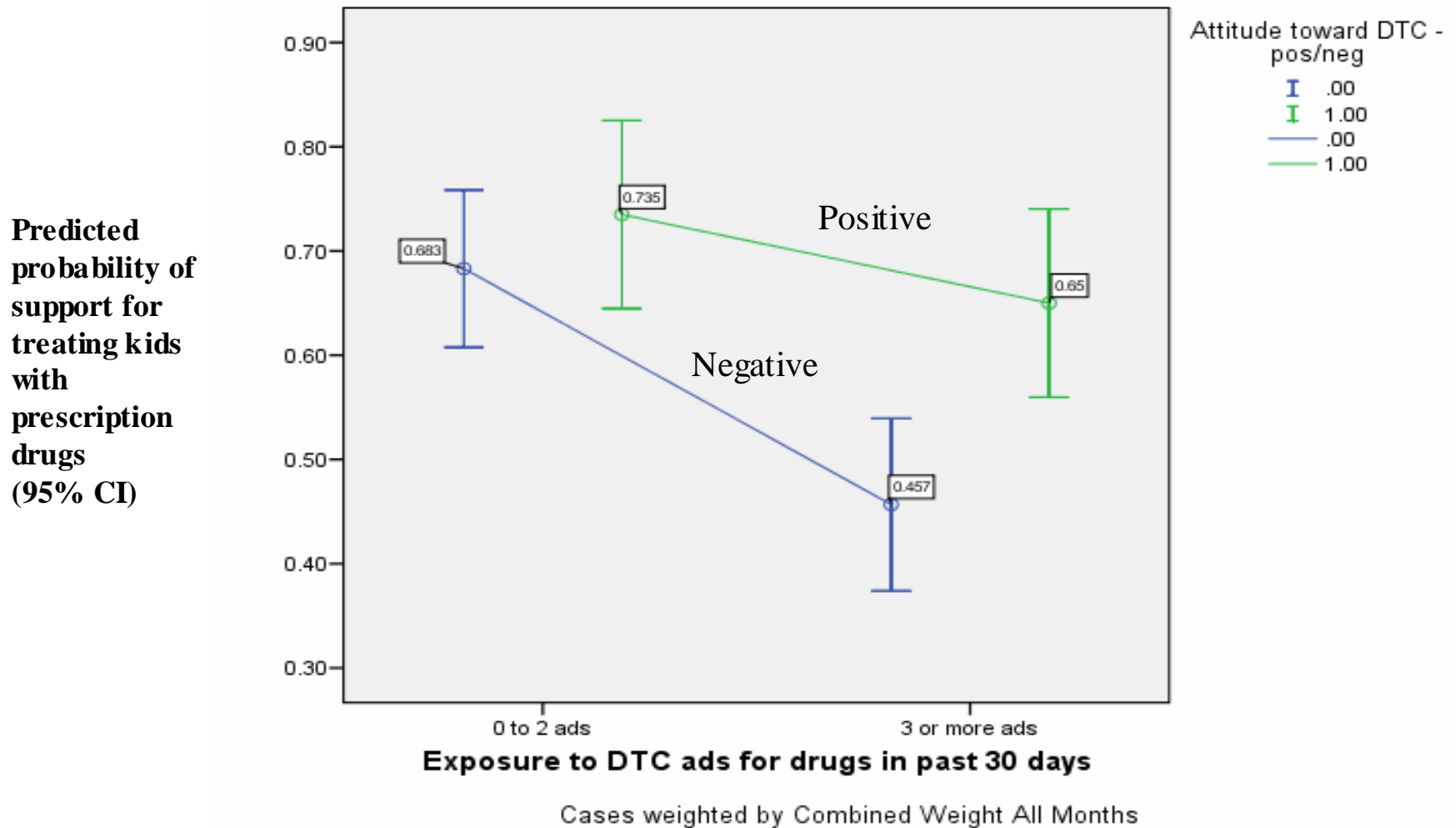
Table 3: Logistic regression analysis – Support for use of drugs to treat anxiety or depression among youth (n=402)

Variables	MODEL 1		MODEL 2	
	OR	95% CI	OR	95% CI
Gender (Female = 1)	0.92	(0.38-2.23)	0.98	(0.55-1.75)
Race (White = 1)	0.73	(0.38-1.42)	0.67	(0.34-1.30)
Age 18 - 29 (reference)	-		-	
30 - 44	0.92	(0.36-2.24)	1.17	(0.48-2.89)
45 – 59	1.04	(0.43-2.53)	1.19	(0.48-2.97)
60+	3.65*	(1.38-9.99)	3.42*	(1.33-9.97)
Marital Status (Married = 1)	1.97*	(1.10-3.52)	2.21**	(1.23-3.97)
Education				
Less than high school	0.99	(0.35-2.78)	0.92	(0.32-2.66)
High school	1.61	(0.83-3.10)	1.68	(0.88-3.19)
College and above (reference)	-		-	
Income	1.00	(0.99-1.10)	1.00	(0.99-1.01)
Employed (currently employed = 1)	1.57	(0.82-3.02)	1.40	(0.72-2.74)
Parent of child aged 6 to 17	2.39**	(1.23-4.67)	2.15*	(1.11-4.15)
Had/has anxiety	2.10	(0.87-5.11)	2.45*	(1.00-6.00)
Had/has depression	0.82	(0.38-1.78)	0.63	(0.28-1.39)
Knows user/s of antidepressants	1.40	(0.63-3.13)	1.36	(0.60-3.07)
Knows user/s of medication for anxiety	1.38	(0.63-3.00)	1.53	(0.70-3.36)
Knowledge about medication for anxiety/depression from sources other than DTC	0.69	(0.27-1.78)	0.75	(0.28-1.98)
Exposure to TV	1.32**	(1.07-1.62)	1.29*	(1.05-1.59)
Exposure to other media	1.04	(0.84-1.29)	1.09	(0.88-1.36)
Exposure to DTC ads for drugs for depression/anxiety	0.75**	(0.64-0.89)	0.78**	(0.66-0.92)
Attitude towards DTC ads (positive attitude = 1)	1.71	(0.97-3.00)	0.86	(0.44-0.70)
Attitude to DTC ads x Exposure	-		2.83***	(1.60-5.02)
	Chi-Square	62.99 (<0.001)		68.28 (<0.001)
	Nagelkerke R-Sq.	0.155		0.183

Odds ratios were calculated by exponentiating the coefficients.

*p < 0.05; **p < 0.01; ***p < 0.001

Figure 1: Predicted probability of support for treating youth with prescription drugs for depression and anxiety x Exposure to DTCA x Attitude toward DTCA



Discussion

- DTCA influences public opinion
- Demographic variables associated with support
 - 1) Age
 - 2) Marital Status
 - 3) Presence of child under 17 in household
- Attitude towards DTCA moderates effect of exposure to DTCA on support
- Two explanations
 - 1) DTCA may lead to negative attitudes toward DTCA
 - 2) Reactance Theory
- Implication - Cause for concern among advocates of SSRI treatments for youth

Limitations

- Focus on one class of prescription drugs under debate
- Combined measurement of exposure to advertisements of antidepressants and drugs to treat anxiety
- Cross-sectional data
- Sample size lacking statistical power for establishing mediation effects
- Future Research
 - 1) What predicts attitudes towards DTCA?
 - 2) Content analysis of DTCA and presence of children?

Thank You

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Question Wording

- **Exposure to DTCA:** *“In the past 30 days how often have you seen or heard advertisements for prescription drugs to treat depression or anxiety on TV, radio, in newspapers or magazines or on the Internet?”* with answer options of “never” “one or two ads” “three or four ads” or “five or more ads.”
- **General attitude about DTCA :** a 4-item 5-point scale (Cronbach’s alpha = 0.76) developed by Bell et al. (1999). Extent to which respondents agreed or disagreed that prescription drug ads provided valuable information, described risks and benefits, were deceptive in nature (reverse coded), as well as how much respondents approved or disapproved of such ads.
- **Support for treating youth with antidepressants:** a 5-point Likert-type scale with answer options ranging from strong disapproval to strong approval. Recoded into a dichotomous variable (approval = 1).