

Chapter 1 : Antidepressant - Wikipedia

Keywords: direct-to-consumer advertising, advertising, antidepressants, placebo effect Introduction Psychopharmaceuticals are currently in crisis, and the science of depression has become a contest between scientists, pharmaceutical marketing, physicians, professional medical organizations, regulatory agencies, and patients.

But are antidepressants always the best treatment option? What are the potential side effects and safety concerns? And are there any truly effective non-drug alternatives? These are some of the important questions to think about when considering antidepressant treatment. Antidepressants are a range of medications used in the treatment of depression and other mental health conditions, and are some of the most commonly prescribed medications around. For anyone suffering the pain and anguish of depression, they promise a quick and simple method of relief. Is depression really caused by a chemical imbalance in the brain? The truth is that there is very little—if any—research to support this theory. So, what does cause depression? Depression Symptoms and Warning Signs: Recognizing Depression and Getting Help Mental health researchers agree that the causes of depression are much more complex than the chemical imbalance theory suggests. A growing body of research points to other physiological factors, including inflammation, elevated stress hormones, immune system suppression, abnormal activity in certain parts of the brain, nutritional deficiencies, and shrinking brain cells. And these are just the biological causes of depression. Social and psychological factors—such as loneliness, lack of exercise, poor diet, and low self-esteem—also play an enormous role. How effective are antidepressants in treating depression? Going back to our aspirin analogy: Is the same true with antidepressants and depression? Again, the evidence may surprise you. When depression is severe, medication may be helpful—even lifesaving. However, research shows that very few people become symptom-free on antidepressants, and some become worse. Many people who respond initially to medication soon slip back into depression, despite sticking with their drug treatment. Furthermore, other studies show that the benefits of antidepressants have been exaggerated, with a growing number of researchers concluding that—when it comes to mild to moderate depression—antidepressants are no more effective than placebos. Where does this leave me? Overcoming Depression One Step at a Time Medication may be right for you if depression is interfering with your ability to function in an important part of your life—work, school, or in your relationships, for example. However, many people use antidepressants when therapy, exercise, or self-help strategies would work just as well or better—minus the unpleasant side effects. See Coping with Depression and Depression Treatment Side effects of antidepressant medication Side effects are common in all antidepressants. For many people, the side effects are serious enough to make them stop taking the medication. The SSRIs act on the brain chemical serotonin, which not only helps to regulate mood, but also plays a role in digestion, pain, sleep, mental clarity, and other bodily functions. As a result, SSRIs can cause a wide range of side effects, including:

Chapter 2 : Antidepressants: Selecting one that's right for you - Mayo Clinic

Abstract As the efficacy and science of psychopharmaceuticals has become increasingly uncertain, marketing of these drugs to both physicians and consumers continues to a central part of a multi-billion dollar per year industry in the United States.

Read now How long does treatment last? People who use medication should continue for at least 6 months after starting to feel better. Those who stop before 8 months of use may see a return of symptoms. Those who have had one or more recurrences should continue the treatment for at least 24 months. Those who regularly experience recurrences depression may need to use the medication for several years. However, a literature review published in found that long-term use of antidepressants may worsen symptoms in some people, as it can lead to biochemical changes in the body. In pregnancy In the United States, 8 percent of women are reported to use antidepressant drugs during pregnancy. A doctor will help weigh up the pros and cons of taking antidepressants during pregnancy The use of SSRIs during pregnancy has been linked with a higher risk of pregnancy loss, preterm birth, low birth weight, and congenital birth defects. Possible problems during delivery include excessive bleeding in the mother. After birth, the newborn may experience lung problems known as persistent pulmonary hypertension. A study of 69, pregnancies found that using SNRIs or TCAs during pregnancy may increase the risk of pregnancy-induced hypertension or high blood pressure, known as pre-eclampsia. However, it remains unclear whether this is due to the drugs or the depression. Findings published in JAMA in suggested that almost 1 in 3 infants whose mothers used antidepressants during pregnancy experienced neonatal abstinence syndrome. Withdrawal symptoms included disturbed sleep, tremors, and high-pitched crying. In some cases, the symptoms were severe. A lab study found that rodents that were exposed to citalopramâ€”an SSRI antidepressantâ€”just before and after birth showed considerable brain abnormalities and behaviors. However, for some women, the risk of continuing the medication is smaller than the risk of stopping, for example, if her depression could trigger an action that might harm herself or her unborn child. The doctor and patient need to discuss fully the benefits and potential harms of stopping antidepressants at this time. If possible, other therapies should be considered, such as cognitive CBT, meditation, or yoga. Breastfeeding Tiny amounts of some antidepressants enter the breast milk, for example, sertraline and nortriptyline. The decision to use antidepressants at this time will involve several factors: Is the infant healthy? Were they born preterm? How much of the active ingredients will enter the breast milk, which depends on the type of drug One study, published in The Journal of Clinical Endocrinology and Metabolism, found that for women who use antidepressants during pregnancy, it may take longer to be able to breastfeed. The researchers explain that the breast glands are regulated by serotonin, so their ability to produce milk at the right time is linked to the production and regulation of this hormone. Alternative options CBT and other types of counselling and therapy can also help with depression. It is available over-the-counter as a supplement. However, it should only be taken after speaking to a doctor, as there are some possible risks. Combined with certain antidepressants, St. It can worsen symptoms of bipolar disorder and schizophrenia. A person who has or may have bipolar-related depression should not use St. It might reduce the efficacy of some prescription medications, including birth control pills, some heart medications, warfarin, and some therapies for HIV and cancer. It is important to tell your doctor or pharmacist if you plan on taking St. Some evidence supports the use of St. Light box People who experience seasonal affective disorder SAD , or "winter blues," may benefit from light therapy. This involves sitting in front of a light box first thing in the morning for 20 to 60 minutes. Light boxes are available to purchase online. Vitamin D supplements may or may not help treat SAD. Evidence is not conclusive. Diet and exercise Some studies have shown that a healthy, well-balanced diet, plenty of exercise, and staying in touch with family and friends can reduce the risk of depression and recurrences. Depression is a serious condition that may need medical treatment. Anyone who experiences the symptoms of depression should seek medical advice.

Chapter 3 : Antidepressants and Advertising: Psychopharmaceuticals in Crisis

Are antidepressants truly as effective as the advertisements claim? Should pharmaceutical companies even be allowed to advertise them? This book looks at these questions and others as it examines the volatile issue of marketing antidepressants.

Sexual problems, such as difficulty achieving an erection, delayed orgasm or low sex drive Generally speaking: Amitriptyline, doxepin, imipramine and trimipramine are more likely to make you sleepy than other tricyclic antidepressants are. Taking these medications at bedtime may help. Amitriptyline, doxepin and imipramine are more likely to cause weight gain than other tricyclic antidepressants are. Nortriptyline and desipramine appear to have better tolerated side effects than other tricyclic antidepressants do. Which antidepressant is best for you depends on a number of issues, such as your symptoms and any other health conditions you may have. Ask your doctor and pharmacist about the most common possible side effects for your specific antidepressant and read the patient medication guide that comes with the prescription. Some tricyclic antidepressants are more likely to cause side effects that affect safety, such as: Disorientation or confusion, particularly in older people when the dosage is too high Increased or irregular heart rate More-frequent seizures in people who have seizures Other issues to discuss with your doctor before you take a cyclic antidepressant: Talk to your doctor about the risks and benefits of using specific antidepressants. Some antidepressants can cause dangerous reactions when combined with certain medications or herbal supplements. Rarely, an antidepressant can cause high levels of serotonin to accumulate in your body. Serotonin syndrome most often occurs when two medications that raise the level of serotonin are combined. These include other antidepressants, certain pain or headache medications, and the herbal supplement St. Signs and symptoms of serotonin syndrome include anxiety, agitation, sweating, confusion, tremors, restlessness, lack of coordination and a rapid heart rate. Seek immediate medical attention if you have any of these signs and symptoms. Safety and blood tests. Your doctor may recommend blood levels to determine the most effective dose. Some side effects and benefits of cyclic antidepressants depend on the dose. Overdose of cyclic antidepressants can be dangerous. Cyclic antidepressants can cause problems in people with certain health conditions. For example, if you have glaucoma, an enlarged prostate, heart problems, diabetes, liver disease or a history of seizures, talk to your doctor about whether a cyclic antidepressant is a safe choice for you. Most antidepressants are generally safe, but the FDA requires that all antidepressants carry black box warnings, the strictest warnings for prescriptions. In some cases, children, teenagers and young adults under 25 may have an increase in suicidal thoughts or behavior when taking antidepressants, especially in the first few weeks after starting or when the dose is changed. Anyone taking an antidepressant should be watched closely for worsening depression or unusual behavior. If you or someone you know has suicidal thoughts when taking an antidepressant, immediately contact your doctor or get emergency help. Keep in mind that antidepressants are more likely to reduce suicide risk in the long run by improving mood. However, stopping antidepressant treatment abruptly or missing several doses can cause withdrawal-like symptoms. Symptoms may vary depending on how the drug works. This is sometimes called discontinuation syndrome. Work with your doctor to gradually and safely decrease your dose. Withdrawal-like symptoms can include:

Chapter 4 : Antidepressant Medication: What You Need to Know About Depression Medication

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Sign up now Antidepressants: With persistence, you and your doctor should find one that works so that you can enjoy life more fully again. By Mayo Clinic Staff Antidepressants are a popular treatment choice for depression. Although antidepressants may not cure depression, they can reduce symptoms. The first antidepressant you try may work fine. And sometimes a combination of medications may be an option. Finding the right antidepressant There are a number of antidepressants available that work in slightly different ways and have different side effects. Symptoms of depression can vary, and one antidepressant may relieve certain symptoms better than another. Side effects of antidepressants vary from one medication to another and from person to person. Bothersome side effects, such as dry mouth, weight gain or sexual side effects, can make it difficult to stick with treatment. Discuss possible major side effects with your doctor or pharmacist. Whether it worked for a close relative. How a medication worked for a first-degree relative, such as a parent or sibling, can indicate how well it might work for you. Also, if an antidepressant has been effective for your depression in the past, it may work well again. Interaction with other medications. Some antidepressants can cause dangerous reactions when taken with other medications. A decision to use antidepressants during pregnancy and breast-feeding is based on the balance between risks and benefits. Overall, the risk of birth defects and other problems for babies of mothers who take antidepressants during pregnancy is low. Still, certain antidepressants, such as paroxetine Paxil, Pexeva , may be discouraged during pregnancy. Some antidepressants may cause problems if you have certain mental or physical health conditions. On the other hand, certain antidepressants may help treat other physical or mental health conditions along with depression. Other examples include using duloxetine Cymbalta to help with pain symptoms or fibromyalgia, or using amitriptyline to prevent migraines. Cost and health insurance coverage. Also find out whether your health insurance covers antidepressants and if there are any limitations on which ones are covered. Types of antidepressants Certain brain chemicals called neurotransmitters are associated with depression – particularly serotonin ser-o-TOE-nin , norepinephrine nor-ep-ih-NEF-rin and dopamine DOE-puh-meen. Most antidepressants relieve depression by affecting these neurotransmitters. Each type class of antidepressant affects these neurotransmitters in slightly different ways. Many types of antidepressant medications are available to treat depression, including: Selective serotonin reuptake inhibitors SSRIs. Doctors often start by prescribing an SSRI. These medications generally cause fewer bothersome side effects and are less likely to cause problems at higher therapeutic doses than other types of antidepressants are. Serotonin and norepinephrine reuptake inhibitors SNRIs. Bupropion is one of the few antidepressants not frequently associated with sexual side effects. Tricyclic antidepressants – such as imipramine Tofranil , nortriptyline Pamelor , amitriptyline, doxepin and desipramine Norpramin – tend to cause more side effects than newer antidepressants. Monoamine oxidase inhibitors MAOIs. Using an MAOI requires a strict diet because of dangerous or even deadly interactions with foods – such as certain cheeses, pickles and wines – and some medications, including birth control pills, decongestants and certain herbal supplements. Your doctor may recommend combining two antidepressants, or other medications may be added to an antidepressant to enhance antidepressant effects. Antidepressants and risk of suicide Most antidepressants are generally safe, but the Food and Drug Administration FDA requires that all antidepressants carry black box warnings, the strictest warnings for prescriptions. In some cases, children, teenagers and young adults under 25 may have an increase in suicidal thoughts or behavior when taking antidepressants, especially in the first few weeks after starting or when the dose is changed. Anyone taking an antidepressant should be watched closely for worsening depression or unusual behavior. If you or someone you know has suicidal thoughts when taking an antidepressant, immediately contact your doctor or get emergency help. Keep in mind that antidepressants are more likely to reduce suicide risk in the long run by improving mood. Making antidepressants work for you

To get the best results from an antidepressant: Once you and your doctor have selected an antidepressant, you may start to see improvement in a few weeks, but it may take six or more weeks for it to be fully effective. With some antidepressants, you can take the full dosage immediately. With others, you may need to gradually increase your dose. Talk to your doctor or therapist about coping with depression symptoms as you wait for the antidepressant to take effect. Take your antidepressant consistently and at the correct dose. See if the side effects improve. Many antidepressants cause side effects that improve with time. For example, initial side effects when starting an SSRI can include dry mouth, nausea, loose bowel movements, headache and insomnia, but these symptoms usually go away as your body adjusts to the antidepressant. If you have bothersome side effects or no significant improvement in your symptoms after four weeks, talk to your doctor about changing the dose, trying a different antidepressant switching , or adding a second antidepressant or another medication augmentation. A medication combination may work better for you than a single antidepressant. In many cases, combining an antidepressant with talk therapy psychotherapy is more effective than taking an antidepressant alone. Some antidepressants can cause significant withdrawal-like symptoms unless you slowly taper off your dose. Quitting suddenly may cause a sudden worsening of depression. Avoid alcohol and recreational drugs. It may seem as if alcohol or drugs lessen depression symptoms, but in the long run they generally worsen symptoms and make depression harder to treat. Talk with your doctor or therapist if you need help with alcohol or drug problems.

all DTC antidepressant advertisement an individual is exposed to in all media, randomize the exposure, track physician visits for the purpose of diagnosis/treatment of depression, and track scripts issued for antidepressant medications for the individual.

Major depressive disorder[edit] Clinical guidelines[edit] This section needs to be updated. Please update this article to reflect recent events or newly available information. The guidelines recommended that antidepressant treatment be considered for: People with a history of moderate or severe depression, Those with mild depression that has been present for a long period, As a second-line treatment for mild depression that persists after other interventions, As a first-line treatment for moderate or severe depression. The guidelines further note that antidepressant treatment should be used in combination with psychosocial interventions in most cases, should be continued for at least six months to reduce the risk of relapse, and that SSRIs are typically better tolerated than other antidepressants. Options may include pharmacotherapy, psychotherapy, electroconvulsive therapy ECT , transcranial magnetic stimulation TMS or light therapy. They recommended antidepressant medication as an initial treatment choice in people with mild, moderate, or severe major depression, that should be given to all patients with severe depression unless ECT is planned. Stronger evidence supports the usefulness of antidepressants in the treatment of depression that is chronic dysthymia or severe. A meta-analysis of trials found that in adults with major depressive disorder antidepressants were more efficacious than placebo [12] Effect sizes measured at 8-weeks after treatment onset were modest with a summary standard mean difference [13] of 0. A meta-analysis of trials found that antidepressants showed little or no effect for treating depression in dementia. This was statistically significant, but failed to meet the clinical significance threshold, predefined according to the National Institute for Health and Care Excellence recommended standard mean difference of 0. A high risk of bias was found, which could possibly explain the statistically significant effect of SSRI, and the authors concluded that the frequency of adverse events outweighed the small clinical improvements. FDA published a systematic review of all antidepressant maintenance trials submitted to the agency between and The authors also found no evidence of a relationship between baseline severity of depression and degree of benefit of antidepressants over placebo. The change in response rate was largely driven by increase in placebo response. However the authors still concluded that antidepressants were effective in treating depression. The Cochrane Collaboration published a systematic review of clinical trials of the tricyclic antidepressant amitriptyline in The study concluded that in spite of moderate evidence for publication bias, there is strong evidence that the efficacy of amitriptyline is superior to placebo. Antidepressants in patients with a score less than 23 indicating mild to moderate depression demonstrated a small benefit over placebo. The treatment guidelines developed in conjunction with this review suggest that antidepressants should be considered in patients with moderate to severe depression and those with mild depression that is persistent or resistant to other treatment modalities. The meta analysis concluded that it is difficult to assign a place for St. The authors suggest that one possible explanation for the growing placebo effect in clinical trials is the inclusion of larger number of participants with shorter term, mild, or spontaneously remitting depression as a result of decreasing stigma associated with antidepressant use. The results [31] [32] are summarized here. Participants in the trial were recruited when they sought medical care at general medical or psychiatric clinics. No advertising was used to recruit subjects in order to maximize the generalizability of the study results. Participants were required to have a minimum score of 14 point on the Hamilton Depression Scale HAM-D17 in order to be enrolled in the trial. In the aftermath of the trial, the investigators have presented the results mainly using the secondary endpoint of remission according to the QIDS-SR16 Score, which tend to be somewhat higher. After the first course of treatment, Twenty-six percent dropped out. Partial remission is characterized by the presence of poorly defined residual symptoms. These symptoms typically include depressed mood, psychic anxiety, sleep disturbance, fatigue and diminished interest or pleasure. It is currently unclear which factors predict partial remission. However, the more antidepressants an individual had already tried, the less likely they were to benefit from a new antidepressant

trial. These include lithium and thyroid augmentation, dopamine agonists , sex steroids , NRIs , glucocorticoid-specific agents, or the newer anticonvulsants. Although this may be used in clinical practice, there is little evidence for the relative efficacy or adverse effects of this strategy. Several studies have shown the efficacy of combining modafinil to treatment-resistant patients. It has been used to help combat SSRI-associated fatigue. This results in a high rate of relapse. GAD is a common disorder of which the central feature is excessive worry about a number of different events. Key symptoms include excessive anxiety about multiple events and issues, and difficulty controlling worrisome thoughts that persists for at least 6 months. Antidepressants provide a modest-to-moderate reduction in anxiety in GAD, [56] and are superior to placebo in treating GAD. In children, SSRIs can be considered as a second-line therapy in those with moderate-to-severe impairment, with close monitoring for psychiatric adverse effects. Long-term efficacy remains poorly characterized. Bupropion is not recommended for the treatment of eating disorders due to an increased risk of seizure. Those from the American Psychiatric Association note that SSRIs confer no advantage regarding weight gain, but that they may be used for the treatment of co-existing depressive, anxiety, or obsessive-compulsive disorders. Tricyclics appear to be the most effective class, with moderate effects on pain and sleep and small effects on fatigue and health-related quality of life. Discontinuation of treatment due to side effects was common. They concluded that the long history of successful use in the community for the treatment of fibromyalgia and neuropathic pain justified its continued use.

Chapter 6 : Tricyclic antidepressants (TCAs) - Mayo Clinic

Advertising must be at least partly responsible for the fact that over twice as many women as men use antidepressants. The following ads show women who need medication because they fail to thrive.

Have you ever carefully watched a television ad for an antidepressant from start to finish? Two significant group differences were observed on the Past Influence measure. Women reported significantly more actions in response to advertisements mean: We also examined the influence of antidepressant advertisements on requests by comparing those who reported making a prescription request. The groups had identical exposure scores, but requesters paid closer attention to these advertisements mean: Requesters were also more positive in their attitudes toward antidepressant advertising mean: No differences were found between requesters and nonrequesters on the demographic and health measures. Discussion and conclusion 4. Discussion This study tells a story about a unique community of consumers and patients: This is the first survey to examine how such individuals feel about and respond to consumer-targeted antidepressant advertising. These respondents are further distinguished by their willingness to open their lives to others, as evidenced by their involvement in a public support forum. Results support several conclusions. First, DTC promotion of antidepressants has increased awareness of antidepressants among individuals with depression. However, although exposure was high, only one-third of respondents indicated that they were very attentive to these advertisements. Generally, attention was a much stronger predictor than exposure of attitudes, beliefs and action. Presumably, exposure is shaped by patterns of media use, whereas attention reflects interests in antidepressants and depression. Second, individuals with depression are ambivalent about antidepressant advertising. They typically gave a low evaluation of the quality of information provided in such messages and held neutral attitudes. Not surprising, individuals who evaluated more positively the information in these advertisements were more inclined to have acted upon them. This finding suggests that the pharmaceutical industry could increase the effectiveness of its advertising by being more educational and less promotional [17]. Third, DTCA antidepressant advertisements have some positive influence on the behavior of individuals with depression. The most prominent effect is to promote discussions with physicians, which was reported by nearly forty percent of respondents. These advertisements were more likely to lead patients to initiate discussions about medications than depression per se. This finding may reflect the nature of our sample, which consisted primarily of individuals with chronic depression who have probably acquired a good understanding of their condition. Survey length limitations prevented us from exploring the outcomes of such requests, but we can note that switching doctors as a result of request nonfulfillment was reported by fewer than 1 in 20 respondents. Fourth, little support could be found for the argument that advertising encourages demand for antidepressants by attributing depression to a brain chemical imbalance. Individuals who paid the closest attention to these advertisements were indeed more likely to subscribe to this explanation of depression. Belief in the chemical imbalance account was significantly but weakly associated with higher acceptance ratings for antidepressants and lower ratings for counseling. However, endorsement of the chemical imbalance model was not associated with advertisement-induced prescription requests. Fifth, more than half of these respondents had visited an official antidepressant drug website after seeing an antidepressant advertisement, which underscores the need to investigate promotional messages delivered through both traditional media and the internet [45]. Respondents were ten times more likely to have visited a website for more information than to have called a patient education toll free number. A recent report confirms that the internet has gained prominence in consumer-targeted drug promotion [46]. Finally, it appears that antidepressant advertisements may impact men and women differently. Although our sample included few men, three significant gender differences emerged. Women were more positive about antidepressants advertising, rated the information in these advertisements of higher quality, and were more likely to have acted upon them. This study has limitations. First, these data came from a small convenience sample not representative of the population of adults living with depression. Rather, the sample consists of highly motivated, internet savvy consumers, most with chronic or recurrent depression. Second, the cross-sectional survey design makes causal explication challenging.

Third, although respondents ascribed specific behaviors to DTC advertisements, the accuracy of their causal attributions cannot be assessed. Conclusion Individuals with depression feel ambivalent about DTC advertisements for antidepressants and are doubtful about the quality of information provided. Nevertheless, they notice these ads and report being influenced by them. Practice implications Direct-to-consumer antidepressant advertisements encourage discussions between patients and physicians, prompt requests for drug therapy, influence perceptions of the etiology of depression, and possibly increase adherence. However, these findings hint at the possibility that these ads lower the acceptance of psychotherapy and encourage doctor shopping in a small subset of patients. When encountering a patient who is hesitant to consider the full range of treatment options, physicians should explore the basis of such resistance. Where DTC advertising is responsible, the patient might be reminded that while such ads often contain important educational content, their primary purpose is to sell drugs. Acknowledgements The authors gratefully acknowledge the assistance of Dr. Role of Funding Source This research was funded by the National Institute of Mental Health Grant R , which played no role in the collection, analysis, or interpretation of data. Kravitz has received grants from Pfizer, none related to depression. This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain. Conflict of Interest The remaining authors have no conflicts of interests to disclose. References [1] The Nielsen Company U. Available online at [http:](http://) Advertising-induced prescription drug requests: Online report, available at [http:](http://) Promotion of prescription drugs to consumers. *N Engl J Med*. A decade of direct-to-consumer advertising of prescription drugs. Health related virtual communities and electronic support groups: The social life of health information. Benefiting from social capital in online support groups: Consumer believability of information in direct-to-consumer DTC advertising of prescription drugs. *Journal of Business Ethics*. Direct-to-consumer prescription drug advertising: *J Am Board Fam Pract*. *Journal of Consumer Marketing*. Direct-to-consumer prescription drug advertising and the public. *J Gen Intern Med*. The educational value of consumer-targeted prescription drug print advertising. Direct-to-consumer advertising of prescription drugs: *Clinical Pharmacology and Therapeutics*. A wonderful life of diarrhea and dry mouth? Policy issues of direct-to-consumer drug advertising on television. Consumer advertising of psychiatric medications biases the public against nonpharmacological treatment. *Ethical Hum Psychol Psychiatry*. *Journal of Marketing Communications*. Impact of direct-to-consumer advertising DTCA on patient health-related behaviors and issues. The attitudes of consumers toward direct advertising of prescription drugs. An exploratory analysis of consumer recognition of direct-to-consumer advertising of prescription medications. *J Health Car Mark*. Direct-to-consumer advertising of prescription drugs. Direct-to-consumer advertising and its utility in health care decision making: Direct to consumer ads can influence behavior. *American Journal of Health Behavior*. Attitude toward direct-to-consumer advertising and drug inquiry intention: *J of Health Commun*. The role of direct-to-consumer advertising in shaping public opinion surrounding prescription drug use to treat depression or anxiety in youth. The rise of direct-to-consumer advertising of prescription drugs in the United States. Cost and benefits of direct-to-consumer advertising: Effects of pharmaceutical promotion on adherence to the treatment guidelines for depression. Direct-to-consumer advertising of psychotropics: Symbolic meanings in direct-to-consumer antidepressant advertising. *Journal of Communication Inquiry*. The social reality of depression: DTC advertising of antidepressants and perceptions of the prevalence and lifetime risk of depression. Antidepressant direct-to-consumer advertising and social perception of the prevalence of depression:

Chapter 7 : Bad Mothers and Single Women: A Look Back at Antidepressant Advertisements (PHOTOS) |

Most antidepressants are generally safe, but the Food and Drug Administration (FDA) requires that all antidepressants carry black box warnings, the strictest warnings for prescriptions.

Find articles by Nathan P. Kaptchuk Find articles by Ted J. Abstract As the efficacy and science of psychopharmaceuticals has become increasingly uncertain, marketing of these drugs to both physicians and consumers continues to a central part of a multi-billion dollar per year industry in the United States. We explore how such drug marketing portrays idealized scientific relationships between psychopharmaceuticals and depression; how multiple stakeholders, including scientists, regulatory agencies, and patient advocacy groups, negotiate neurobiological explanations of mental illness; and how the placebo effect has become a critical issue in these debates, including the possible role of drug advertising to influence the placebo effect directly. Public controversies and medical uncertainties concerning antidepressants have become the norm [1 , 2 , 3]. In this controversial arena, the science of antidepressants has become uncertain, and physicians, policymakers, and consumers are left with few brute facts about if and how antidepressants work. Yet physicians want effective medicines, patients and policymakers want clarity of information, and pharmaceutical companies need to appear to be providing both. To provide a better understanding of the current predicament around psychopharmaceuticals, this article will look at three issues: Selling Science Over the past decade, drug companies have launched extensive physician-directed and direct-to-consumer advertising campaigns to disseminate putative neuroscientific theories about mental illness. These ads are designed to convince doctors and patients that psychopharmaceuticals have an obvious, objective, and scientific relationship to the symptoms they are supposed to treat. Its distinctive chemistry means greater specificity. Rather, it focused on how the drug was chemically distinct from others, emphasizing that it had comparatively more specific action on neurochemical receptors. However, the rhetorical effect of using neuroscience in drug advertising is precisely to imply that pharmacological specificity translates into a more efficacious psychopharmaceutical. Since the original Prozac campaign, the medical image of psychopharmacological specificity has become increasingly fine-grained. Just like the earlier Prozac ad, the Remeron ad does not promise greater efficacy, but rather more exact science. Drug advertising seeks to fill in an explanatory gap between the bench science of psychopharmacology and the palpable or measurable real-world effects of antidepressants. While the pharmaceutical industry uses placebo-controlled clinical trials to establish that a given antidepressant is effective, these trials are neither designed nor intended to show why an antidepressant might work at all. Do patients experience symptom relief because their drug acts on a distinct underlying disease pathology as pharmaceutical ads imply or because their drug induces a psychoactive state e. Not only do neuroscientists debate the most basic of biological mechanisms that may be involved in depression, but some recent analyses of clinical trial data suggest that, overall, SSRI antidepressants like Prozac and Effexor venlafaxine do not work much better than placebos [14 , 15 , 16]. Despite such broad uncertainty over both the scientific explanations and efficacy of antidepressants, DTC advertising is still a nearly 5 billion dollar per year industry and practically unique to the United States, as no other country except New Zealand allows it [17]. And antidepressants remain one of the most heavily advertised prescription drug categories [18]. Drug marketing gets recruited to do what science itself cannot: Seriously, nothing sells like verisimilitude. In the middle is a rhetorical gray area of imputation, suggestion, and belief on the part of scientists, psychiatrists, and consumer-patients alike. In this middle comes the opportunity for companies to market the unknown to the Food and Drug Administration FDA and to the public, to repeat the possibility of neuroscience so that it becomes common sense. This finding resonates with how drug marketers reflect on their own advertising strategies: They do not ask for your drug because it is well researched. They ask because something you said in the 35 seconds made them interested. That is the end goal. It warns that the drug advertisement development process should not mirror the drug development process. Since the advent of DTC, drug marketers have been honing how to give science market-driven meaning. Their professional literature encourages marketers to fantasize how to communicate to a market,

before the drug is even developed: Well, yes and no. Without the science, there is no product at all. A brief sociopolitical history of antidepressants The science of psychopharmaceuticals is also contested by a variety of social groups, who fight over representations of neuroscience in advertising. On the one hand, patient advocacy groups have either embraced or resisted neuroscientific theories in drug advertising, depending on whether they interpret them as socially vindicating biological explanations as exculpatory for stigmatized illnesses, such as premenstrual dysphoric disorder or post-traumatic stress disorder or as socially constraining biological explanations as oversimplified reductions of cultural or psychological complexity. On the other hand, advocacy groups, some including psychiatrists, have even filed complaints with the FDA and Federal Communications Commission FCC , arguing that cartoons of SSRIs acting on neurochemical receptors featured in Zoloft [sertraline] ads are ultimately fraudulent claims about depression and its underlying biological pathology, because the science is still contentious. These controversies demonstrate what social scientists have observed concerning how seemingly objective things, like scientific fact, actually require a great deal of social work to be produced, circulated, and maintained. Critiques over the neuroscience of antidepressants are caught up in larger sociomedical quandaries over what counts as proper medical uses of these drugs and how psychiatric illness should be defined and diagnosed in the first place. Early television commercials for Sarafem fluoxetine hydrochloride, previously marketed as Prozac, which, at the time, had just gone off-patent for premenstrual dysphoric disorder PMDD depicted frustrated women looking for lost car keys or trying to extract shopping carts at grocery stores. As one marketer put it: The current debates over the science, marketing, and uses of antidepressants are born out of a unique history of the role of drug therapy in psychiatric medicine [24]. Historically, American psychiatry has been at the center of broader social tensions between mainstream social institutions, countercultural movements, and civil rights. In the s and s, antipsychiatry groups challenged the cultural authority of organized medicine, especially psychiatry, arguing that it was an institution of social control. Benzodiazepines such as Valium and Miltown were the first psychiatric drugs to occupy a social middle ground between the two perceptions; they were prescription medications for the treatment of anxiety, but they were also pleasurable and consumed recreationally. But by the s, prominent American media outlets, including The New York Times, were reporting that Valium was overprescribed and overconsumed and that people were becoming addicted to the drug. The sociomedical boundary of licit versus illicit got blurred in both directions. Ever since the scandals surrounding the mis uses of benzodiazepines, the pharmaceutical industry has been deeply invested in the legal distinction between licit and illicit drugs, with its accompanying discourses of health and normality versus pleasure and dependency. It can only make you feel more like yourself by treating the imbalance that causes depression. These are all distinctions that pharmaceutical marketing and its regulatory environment demand. The social ambivalence toward psychopharmaceuticals in the age of direct-to-consumer advertising takes the form of constant demand for more promises about the relationship between illness and science versus the equally difficult attempt to regulate those promises to conform to science. When Prozac first became commercially available in the late s, it was not supposed to be inherently pleasurable, nor was it supposed to be addictive, and it was used for a widening range of depression and anxiety symptoms. Peter Kramer famously articulated these questions in his book, *Listening to Prozac* [25]. And, as we have seen, the rudimentary science of psychopharmaceuticals has itself been more fundamentally critiqued. The placebo effect has been especially troublesome for pharmaceutical companies trying to demonstrate the efficacy of antidepressants in clinical trials [14 , 15 , 27]. And yet, while this has led to the accusation that the drug industry promotes psychopharmaceuticals with questionable efficacy, the situation has become more complicated, as some drug marketers are now defending DTC advertising as a way to enhance the placebo effect, leading to better medication compliance: Coincidentally or not, with the rise of DTC marketing, some argue that the placebo effect in depression has increased in recent years [29]. But given such efforts on the part of drug marketers to use advertising to bolster the placebo effect, it is striking that the clinical trial “ which is what the FDA demands of pharmaceutical companies to connect their drugs to specific illness and prove that their drugs work as advertised ” deliberately avoids accounting for marketing itself. Clinical trial participants are typically not told brand names of experimental drugs, and they are not shown advertisements that provide biological

explanations of the drugs and depict symptom relief. Conclusions Psychopharmaceutical marketing participates directly in debates over what is scientifically known about mental illness, with important ramifications for doctor-patient interaction, and patient experiences with antidepressants. Right now, antidepressant advertising propagates narrowly biological explanations of depression especially the seductive notion of simple neurochemical imbalance or deficiency and leaves out any mention of how often symptom relief may occur because of non-pharmacological interventions. At the same time, it would seem that drug companies are using advertising precisely to inflate such non-pharmacological effects, with the goal of attracting consumers to antidepressants, and then keeping them on them. This disconnect between attempts to eliminate the placebo effect in the clinical trial versus attempts to bolster it through advertising indicates a severe tension in a society that privileges medicalized and scientific narratives about pharmaceuticals on the one hand, but which on the other hand is deeply ambivalent about understanding our relationship to psychotropic drugs. Indeed, if and how antidepressants work is not a straightforward objective question, but rather a larger social contest involving scientific debate, the political history of the pharmaceutical industry, cultural discourses surrounding the role of drugs in society, and the interpretive flexibility of personal experience. Therefore, we need to be open to interpretations of psychopharmaceutical action that acknowledge them as psychologically wily substances whose effects are both socially and pharmacologically determined. Drug advertising most certainly does not take these complexities into account, so it is currently in the hands of consumers and medical and policy decision-makers to do so.

Chapter 8 : Antidepressants: Options, Advantages, and Precautions

An antidepressant is the name given to a medicine that can help relieve the symptoms of depression, such as low mood, anxiety, and worthlessness.. Antidepressants are classified into different types depending on their structure and the way that they work.

Nicholls found that antidepressants demonstrated a clinically negligible advantage over inert placebo. These results are surprising, because they come from studies underwritten by the drug manufacturers. This analysis probably overestimates the antidepressant effect because placebo washout strategies, penetration of the blind, reliance on clinician ratings, use of sedative medication, and replacement of nonresponders may penalize the placebo condition or boost the drug condition. These findings do not appear to justify the popularity of antidepressants, which may have been fueled in part by publication bias and outstanding marketing. Psychotherapy may offer an effective alternative with fewer medical risks. Correspondence concerning this article should be addressed to David O. Kirsch, Moore, Scoboria, and Nicholls have gone straight to the heart of the Food and Drug Administration FDA database of blinded, randomized, placebo-controlled trials used in the initial approval of the most popular antidepressant medications, including fluoxetine, paroxetine, sertraline, venlafaxine, nefazadone, and citalopram. The results of their analysis are stunning and offer the potential for a paradigm shift in the way we view the efficacy of antidepressant medications. These studies were underwritten by the pharmaceutical manufacturers themselves, under conditions most favorable to the active drug condition. The placebo washout procedure may also tend to retain patients who exhibit withdrawal symptoms from a prior antidepressant. The FDA studies incorporate another bias as well. Research clinicians routinely educate patients about potential side effects as part of the standard informed consent process. Further, these studies rely on measures by clinicians who often have a major allegiance or stake in the outcome. Efforts to ensure the integrity of the blind tend to diminish drug efficacy. This may also inflate estimates of the drug response if it is subtly related to side effects and limited primarily to the subjects in the active drug condition Moncrieff, A separate analysis excluding these studies might be illuminating. If patients in the drug condition were more likely to take sedatives or antidepressants with sedative properties, results could be distorted because there are at least 6 points on the HAM-D that favor medications with sedative properties Moncrieff, Perhaps the FDA could ask the pharmaceutical companies to resubmit the original data in order to have the most complete and accurate database possible. Another question that remains unanswered has to do with what happens to these patients over longer periods, especially after the medications are withdrawn. In spite of the research design flaws that may favor the drug condition, there is a huge advantage to the FDA database from a scientific perspective. The database includes all of the data from initial trials, published or not, and therefore it is not subject to the usual "file drawer" and publication biases. It would be interesting to know how many of these studies actually were published, to get an estimate of the publication bias in this literature. An indirect estimate of publication bias is possible by looking at the percentage of studies that resulted in significant differences. Antidepressants are significantly more effective than inert placebos in about two thirds of published studies Thase, In the FDA database, Kirsch et al. Klein and Quitkin have argued that because antidepressants have been established as effective in the treatment of depression, trials that do not find a statistical advantage of antidepressants over placebo lack "assay sensitivity" i. In other words, they argue that something is wrong with the sampling or methodology of such trials, and the results should be discounted or discarded. If that logic were applied to this meta-analysis, more than half of the studies would have to be discarded, a strategy that would seriously distort the overall results. Some might suggest that comparing antidepressants and placebos after only 6 weeks of treatment is unfair to the active drug condition and that longer-term outcome will surely favor the medication. The month follow-up data from that multisite trial Shea et al. It is important to note that the results of Kirsch et al. The modest advantage over inert placebo replicates results from many other studies e. The lack of a dose-response relationship has also come up repeatedly e. However, despite lack of evidence Shean, , beliefs about correcting "chemical imbalances" and more powerful antidepressant effects are likely to persist Antonuccio et al. However, the

blind is still subject to penetration in the balanced placebo design. In other words, patients and clinicians may still see through the deception. Then the outcome impact of blind penetration can be estimated by comparing those patients who are truly blind with those who are not. This strategy can simulate a balanced placebo design and can be implemented right now in ongoing studies, with very little additional cost. At the very least, such a procedure would help settle the debate about the extent of blind penetration and its impact. To address concerns that outcome may tip off the condition, clinicians and patients could make their guesses early in the study before treatment effects take hold. It is our contention that no study should be able to claim double blind status and pass peer review without testing the integrity of the blind Antonuccio et al.

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However, like other antidepressants, atypical antidepressants affect the levels of dopamine, serotonin, and norepinephrine in the brain. Brintellix and Viibryd inhibit reuptake of serotonin but also act on serotonin receptors.