



'Is this for me?' A critical multimodal discourse analysis of online direct-to-consumer advertising (eDTCA) in the promotion of prescription-only pharmaceuticals for the treatment of bipolar disorder.

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#### 1: Introduction

In August 1997 the US Food and Drug Administration (FDA) liberalised its policy on pharmaceutical marketing, allowing the US to join New Zealand as the only nations to legally advertise prescription-only medications to the public, as opposed to healthcare professionals, increasing the prevalence of direct-to-consumer advertising (DTCA) (Pines, 1999). In 2011, estimated US DTCA expenditure was over \$3.9 billion; this, though lower than 2007's \$4.9 billion level, is dramatically higher than 1997's \$1.1 billion spend (IMS Health, 2009). Mackey and Liang (2011) reported a 30.8% annual increase in online DTCA ('eDTCA' or 'DTCA 2.0') expenditure in 2009, a trend likely to continue due to increased internet use. This emphasises the significance of eDTCA, a versatile advertising format which included websites, social media and other digital media platforms.

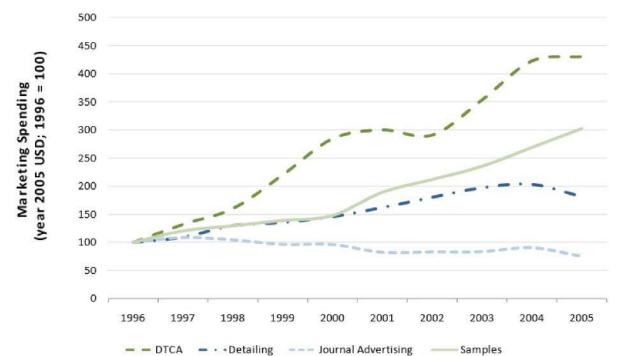


Figure 1.1: DTCA expenditure through time (Donohue, Cevasco & Rosenthal, 2007: 677)

DTCA is used extensively to promote products which treat chronic conditions, where an especially lucrative market lies in the sale of psychotropic medications used to treat mental

disorders (Mintzes, 2012). DTCA spending figures reveal that Prozac (fluoxetine) and Paxil (paroxetine), both antidepressants, were two of the industry's most marketed products (before patent expiration), simultaneously receiving some of the highest prescription figures (Frank et al., 2002). Bipolar disorder treatments remain one of the most profitable components of the US pharmaceutical market (see 2.1), an inevitable impact of DTCA.

DTCA is a persuasive device which provides health information through various forms of communication in order to convince consumers to purchase a product, consequentially raising multiple ethical and economic issues. Considering this, the field of DTCA is well-suited to multimodal discourse analysis, which examined the techniques underpinning this controversial form of communication in order to maximise both exposure and profit for pharmaceutical companies.

# 1.1: Objective

This study shall conduct a critical multimodal discourse analysis of eDTCA techniques utilised by pharmaceutical companies in the online promotion of two prescription-only bipolar medications: the atypical antipsychotics Abilify (aripiprazole) and Seroquel XR (quetiapine). Three key purposes make these medications suitable products for the study: both 1) mirror the trend of increased psychotropic medication sales, 2) are used to treat similar conditions (bipolar disorder, depression and schizophrenia; Abilify is also marketed to treat irritability associated with autistic disorder), and 3) have dedicated websites suitable for analysis. This project shall analyse the methods pharmaceutical companies use within such websites to establish and maintain a consumer-product relationship.

# 2: Background

Recently the polarity associated with DTCA has seen numerous studies, predominately from political, economic or ethical perspectives (see Arnold & Oakley, 2013; Mackey & Liang, 2012; Chin, 2013), yet theoretical insights to how DTCA is effective are scarce. Given the current lack of multimodal discourse analysis applied to eDTCA, particularly with regards to treatments for mental disorders, this section shall 1) conduct research into online search method trends 2) outline previous studies in (e)DTCA relevant to bipolar medications such as Abilify and Seroquel XR, and 3) utilise relevant theoretical frameworks in eDTCA content analysis.

#### 2.1a: An introduction to bipolar medications

Bipolar disorder is a medically recognised condition, though a lack of physical symptoms and reliance on potentially misguided self-observations place the condition at risk of medicalisation by treatment providers, defined by O'Hara (2010: 55) as 'labelling more and more human experience and behavior as a medical problem or illness'. Earlier reports term over-medicalisation as 'disease mongering' (Moynihan, Heath & Henry, 2002: 886), whereby US society is becoming obsessed with health due to external factors (the media, pharmaceutical companies, etc.), which magnify minor problems previously considered part of everyday life (mood swings, anxiety, tiredness, etc.) in order to maximise pharmaceutical sales, portrayed in advertisements as the only 'treatment' option.

Seroquel XR's US sales rank recently improved from 68 (2011: Q1) to 47 (2013: Q3), with Q4-Q3 (2012-13) sales of \$1.18 billion; Abilify experienced sales of \$6.17 billion within the same 12 month period, increasing in sales rank from 4 to 1, generating more sales revenue than any other US drug (IMS Health (Midas), 2013). Despite increased sales revenue, overall units sold have decreased from 2.54 to 2.36 million (Abilify) and 0.44 to 0.38 million (Seroquel XR), reflecting the often-criticised price increases in a market-based US pharmaceutical industry (Matthews & Glass, 2013). This data affirms the consumer-

product relationship: with prices increasing above the inflation rate, pharmaceutical companies must maintain positive relationships with consumers to justify price increases.

#### 2.1b: Side-effects in DTCA

Studies show metabolic function variations as a common Seroquel XR side-effect, promoting weight gain; Alam and Jeffries' (2008) detected this to affect 18.2% of adult patients in placebo-controlled trials. Other research reveals that, although atypical antipsychotics such as Seroquel XR and Abilify induce less side-effects than related medications, patients risk developing tardive dyskinesia (involuntary, repetitive body movements) (Gao, Kemp & Calabrese, 2008). A study revealed approximately 32% of bipolar disorder sufferers taking the recommended Abilify dosage reported mild to moderate side-effects (Kirschbaum et al., 2008), with tension, sedation and extrapyramidal (reflex and movement-related) related problems the most common. An eight week, placebo-controlled fixed dose examination of the effects Abilify has in children and adolescents suffering from irritability associated with autistic disorder indicated positive effects, though an average weight gain of 1.3-1.5kg was observed (Marcus et al., 2009).

The relatively high probability of the mentioned side-effects occurring does not appear to have deterred consumers' spending. Though warnings of any adverse effects are a legal requirement in DTCA, many US and NZ interdisciplinary scholars and medical professionals have called for the tightening of existing regulations as to emphasise the provision of health information, as opposed to a 'product-first' attitude (see Frosch et al., 2010; Timmermans & Oh, 2010). Some NZ academics have even called for a ban of DTCA (Mansfield & Mintzes, 2003), stressing how the pharmaceutical industry must 'show a more responsible attitude to marketing and to the provision of balanced health information' (Toop & Richards, 2004: 2). While the majority of the NZ scholar population does not support banning DTCA, a survey of general practitioners' views endorses the better regulation of DTCA information content (Maubach & Hoek, 2005).

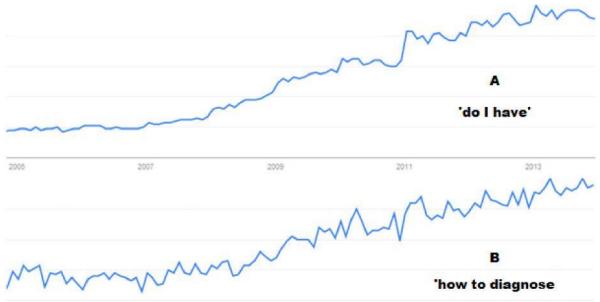
Kuehn (2010) argues for the application of special emphasis eDTCA regulation, which benefits from an immunity owing to a lack of geopolitical boundaries. Chancellor and Chatterjee (2011) have already brought attention to the process of 'brain branding', whereby new pharmaceuticals are sold with limited medical evidence to vulnerable dementia patients; this emotional manipulation may exist in eDTCA targeted towards bipolar disorder sufferers, raising the recurring moral-economic dilemma.

# 2.2: The Internet as a Vehicle for Online Diagnosis

The internet's position as a resource for obtaining health information is undeniable, with Atkinson, Saperstein and Pleis' research (2009) revealing that 58% of internet users searched individually for health information in 2008. A Pew Research study (2009) produced a slightly higher figure for the following year (61%), with 37% of users accessing usergenerated (unofficial) health information online. The editable nature of online content raises issues concerning the legitimacy of sources; as more consumers seek healthcare information through the internet, they become increasingly exposed to sources prone to bias or a lack of credible authorship.

Using Zeitgeist, an online tool developed by Google which allows the analysis of trends in the relative popularity of search terms (i.e., the figure does not rise as a result of increasing internet users or 'search inflation'), it is possible to illustrate changes in a search term's popularity over time. Setting the location filter as 'United States' and entering the colloquial terms 'do I have' and 'how to diagnose' (two common phrases likely to precede an attempt to obtain health information or an online diagnosis) reveals positive trends for both

phrases (Figures 2.1-2.2). The results indicate a positive increase in the popularity of each search term, demonstrating the growth in the individuals' perceived value of online health information resources.



Figures 2.1 - 2.2: Google Zeitgeist results for the search terms 'do I have' (top) and 'how to diagnose' (bottom) (2005-2013).

The ease of online publishing has led to the supply of numerous resources possessing little medical basis, often written by unqualified users. Entering the search term 'how to diagnose bipolar disorder' on the US site of the www.google.com search engine provides an initial page of results linking the user to a step-by-step guide entitled 'How to Diagnose Bipolar Disorder', produced on the website Wikihow (2008), a site allowing any user to upload a step-by-step guide. Amassing over 7000 views, the article has received edits from five individuals whose user profiles indicate no professional qualifications (Appendix 2.0). It is likely that self-diagnosis from an information source lacking in credibility will cause the user to seek treatment through the same medium, thus providing direction to the websites of various pharmaceuticals containing eDTCA.

The experience of very mild 'symptoms' typical of everyday life within online content may influence a patient to visit their doctor. Upon consultation, the description of such 'symptoms' by the patient, who may now believe they suffer from an illness, is likely to provide medical professionals with a distorted patient history, resulting in a potential misdiagnosis with inappropriate treatment methods. The patient has now become a consumer, with the doctor in a potential advisory role (see p. 12). This is especially applicable to mental disorders, as the non-physical symptoms are difficult to express, with the emphasis on the patient (who may have been influenced by (e)DTCA) to disclose information. A study by Mintzes et al. (2003) revealed that 7.2% of patients in Sacramento, US, requested DTCA medicines from their doctors, with 78% of these requests granted; results from Vancouver, Canada, displayed only 3.3% of patients to have requested DTCA medicines, with 72% successfully prescribed. Developments in eDTCA could indeed affect prescription rates in a similar manner, with persuasive content affecting consumer consciousness and prompting unnecessary doctor consultations.

A recent study by Stremersch, Landsman and Venkataraman (2013) shows that prescription requests as a result of DTCA are less likely to be accommodated in areas with a higher proportion of minorities, despite fewer requests in comparison to middle-class areas

(which may suggest that DTCA is targeted towards middle-classes, those likely to be in a position with greater access to eDTCA). Authors have also considered the consumer-targeting of advertisements for medicines specifically aimed towards the treatment of bipolar disorder; the individuals depicted are 'at least nine times likely to be (doing) female, at least three times as likely to be (doing) white, and almost invariably middle class and heterosexualized (except, it seems, when they are unmedicated)' (Liebert, 2010: 334-35). The portrayal of individual patient-actors used in eDTCA shall be explored in greater detail within the analysis section of this paper.

# 3: Method

Within this study, two websites shall be analysed: www.abilify.com and www.seroquelxr.com. This analysis will concentrate on the eDTCA within the bipolar disorder sub-section of each site, with the commercial located on the Abilify.com homepage also providing scope for investigation, due to its promotion as a generic antidepressant.

The study shall provide a critical multimodal discourse analysis of the eDTCA content within each site, focusing on the advertisements provided and the accompanying blend of persuasive language. Images of adverts and text shall be provided within the body of the paper and, where video analysis is conducted, the footage shall be transcribed with an accompanying description (see Appendix). Given the abundance of information within the bipolar sub-sites, data has been selected from areas which give a fair representation of the eDTCA (i.e., pages with the same purpose, a combination of male and female actors, etc.) and allow for a comprehensive study.

When considering online adverts, Kress and Van Leeuwen's *Reading Images: The Grammar of Visual Design* (2006) was an influential work, particularly the chapters concerning 'the meaning of composition' and 'materiality and meaning', which provide a useful basis for analysing the structure of the adverts and the association between text and image. Kress and Van Leeuwen suggest that, in general, ideological functions can be observed from the layout of images. Two key pairs of oppositions in these images are used within this analysis, which can be summarised below:

- 1. The given (left): images and texts located to the left present the familiar and recognisable, often the current situation.
- 2. The new (right): images and texts located to the right present something not yet known, the future; 'the information is presented as though it had that status of value for the reader [...] even if that valuation may then be rejected' (Kress & Van Leeuwen, 2006: 181).
- 3. The ideal (top): images and texts positioned to the top of an advert evoke status and realisation, with height suggesting power.
- 4. The real (bottom): images and texts at the bottom of an advert (often the product itself) are viewed as a solution, a vehicle to ascend to the ideal (top) (Kress & Van Leeuwen, 2006: 186).

Kress and Van Leeuwen (2006: 118) also develop Halliday's (1985) idea of 'the gaze', whereby a figure looking or gesturing directly at the viewer is attempting to create a relationship with its audience. Differences in the gaze image are commonplace throughout many forms of pharmaceutical advertising, with the gaze of individuals in eDTCA examined throughout this study.

Given the emotive nature of many pharmaceutical adverts, with the consumer often searching for a solution to their symptoms and the advertiser attempting to persuade the

consumer to purchase their product as the solution, Higgins' (1998) self-regulatory focus theory is also applied to analysis. Self-regulatory focus theory is a goal pursuit theory which describes two self-regulatory orientations: promotion orientation, where an individual visualises a positive outcome, attempting to reach it; and prevention orientation, where an individual foresees a negative outcome, striving to move away from it (Higgins, 1998). Previous study using this framework has been conducted by Sumpradit, Ascione and Bagozzi (2004), though this pertained to print adverts within a wide range of magazines, with cultural orientation frameworks also applied (likely due to significant differences in readership of various magazines meaning that DTCA must be adjusted accordingly). This study focuses on the use of DTCA online, where audiences may not as targeted as consumer magazines, thus allowing for the analysis of how eDTCA is depicted to the nationwide consumer and a worldwide audience.

#### 4: Analysis

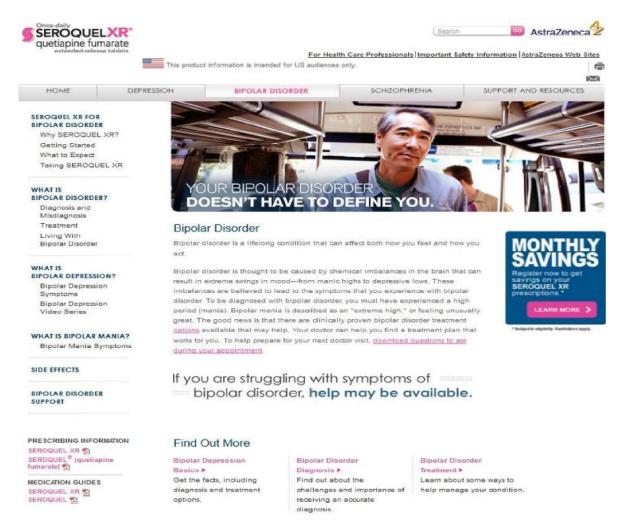
This section shall 1) analyse the effects the linguistic features and layout of the websites has on the user, 2) consider the representation of products in advertisements containing still-images and animations, and 3) examine the format of interactive videos and commercials available on the sites.

Each website is identical in providing FDA-required safety information, which is located, for both sites at the bottom of the page (Appendix 4.3), with the main body of content towards the top. www.abilify.com has an incredibly elongated layout, with numerous product-related sub-menus (Appendix 4.1); www.seroquelxr.com possesses a traditional layout (Appendix 4.2). Figure 4.1 shows the homepage of Seroquel XR, which immediately follows Kress and Van Leeuwen's concepts of 'the ideal' and 'the real'. The top of the view shows both the Seroquel XR and the AstraZeneca (pharmaceutical company) logos, demonstrating their status; the bottom right of the view is a link to 'Bipolar Disorder Treatment', with a Seroquel XR 'MONTHLY SAVINGS' link also present to the right. The gaze of the man in the advert is looking towards this link, subconsciously drawing the viewer's attention to the right hand side of the page and consequently diverting attention from other areas of the screen which contain important information regarding side effects and safety information. Orizio et al. (2010: 973) have drawn attention to the dangers of the finance-wellbeing relationship in online health promotion, as it 'risk(s) shifting or reinforcing consumers' focus on aspects that they might find attractive, but which are irrelevant, secondary and fundamentally distorting in terms of making autonomous decisions regarding their health management'.

Other than the side-pane, the text is only highlighted when relevant to presenting Seroquel XR as a treatment option, despite important issues pertaining to diagnosis being raised. At no point is the question of 'Do I have bipolar disorder?' raised; the focus is instead towards presenting bipolar disorder as an alien concept (the left pane: 'WHAT IS BIPOLAR DISORDER?') which must (to the right) be treated. The emphasis does not appear to be on reassurance, but on assurance that Seroquel XR is there to help, a tool which can 'help manage your condition'. The advert text 'YOUR BIPOLAR DISORDER DOESN'T HAVE TO DEFINE YOU' implies that the viewer has bipolar disorder, when this may not be the case; as their view progresses down the page, their interest is likely to be caught by the bold, vibrant pink text and the 'Monthly Savings' window, as opposed to the grey-coloured diagnosis information.

The Abilify homepage follows a similar design (Figure 4.2), with the product logo located in the top left and information regarding how Abilify is the solution or 'the real' (Kress & Van Leeuwen, 2006) to the right. The patient's gaze is away from the viewer, showing her undesired condition, where she looks out of the window towards 'the light'

(coincidentally the same direction as the Abilify logo). The use of imperative is rife, ('Ask About ABILIFY', 'Learn what to expect', 'Get info to help your loved one'), mystifying the medicine which provides answers and is to be 'learnt' about. The Abilify site provides information for close relations (unlike Seroquel XR), yet opts for the term 'loved one' (evoking feelings of attachment and perhaps guilt). For the close relation of the patient who may have spotted symptoms, their desire is prevention of the condition, while the sufferer is likely to desire a positive outcome, away from a condition which they believe they may already have; as self-regulatory theory dictates, presenting Abilify as the support mechanism for a connection between the patient and their family idealises the product.





Figures 4.1- 4.2 (top to bottom): Homepage content of Seroquel XR and Abilify.



Important Safety Information: Orthostatic hypotension (decreased blood pressure) or lightheadedness or fainting when rising too quickly from a sitting or lying position has been reported with ABILIFY (aripiprazole). See More Safety Information | >



| :: | If I'm still living with symptoms of depression, and am not doing as well as I could be, what are my options? |
|----|---|
| :: | What does add-on therapy mean?  |
| :: | What is an atypical antipsychotic?  |
| :: | Is adding SEROQUEL XR to my current antidepressant an appropriate treatment option for me?                    |
| :: | What things should I consider when starting SEROQUEL XR?  |
| :: | What are the side effects associated with SEROQUEL XR?  |

| Notes: |  |  |  |
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Figures 4.3 - 4.4 (top to bottom): 'Doctor discussion guides' for Abilify and Seroquel XR.

'Doctor discussion guides' (Figures 4.3-4.4) are also a prominent feature on the sites. The guides provide a printable question toolkit for patients to discuss their potential case of bipolar disorder with a doctor, yet do so in a relatively closed, pro-product manner. For example, the Seroquel XR (Figure 4.4) guide begins by questioning depression, but instead targets 'unresolved symptoms', implying an immediate medical solution is required, failing to ask any questions about bipolar disorder itself. The questions proceed to target other products ('How do I know if my current antidepressant isn't giving me the relief I need?'), before using phrases such as 'not doing as well as I could be', and concluding with three questions all specific to Seroquel XR. Abilify's guide (Figure 4.5) is a series of six screens which give information purely Abilify-related, ignorant to the patient's feelings, with an emphasis on how to print the guide rather than giving health information. At the turn of the century, several studies highlighted the effect DTCA has on patient-doctor relationship, describing it as either relationship-building (Holmer, 1999) or explaining that DTCA may 'alter the roles of doctor and patient' (Wilkes, Bell & Kravitz, 2000: 122); this style of specific, product-first questioning from the patient, may indeed diminish the doctor's role to one of an 'advisor' (Figure 4.5).

| Patient power      | Physician power      |                      |  |  |
|--------------------|----------------------|----------------------|--|--|
|                    | High physician power | Low physician power  |  |  |
| High patient power | Mutuality            | Consumerism          |  |  |
| Goals and agenda   | Negotiated           | Patient set          |  |  |
| Patient values     | Jointly examined     | Unexamined           |  |  |
| Physician's role   | Advisor              | Technical consultant |  |  |
| Low patient power  | Paternalism          | Default              |  |  |
| Goals and agenda   | Physician set        | Unclear              |  |  |
| Patient values     | Assumed              | Unclear              |  |  |
| Physician's role   | Guardian             | Unclear              |  |  |

Figure 4.5: Table showing the proposed impact of DTCA on the patient-physician relationship (Roter, 2000: 6).

The figures in the adverts at the top of each guide fit Liebert's (2010) observations discussed earlier in this paper: white, female and of an age to be a mother. The Seroquel XR site inevitably links the user to 'stories': short video clips about actors playing bipolar disorder patients (Figure 4.6) who have 'found staying on their physician recommended treatment regimen challenging' (again, presenting the product as the solution to the challenge). The videos of the patients are interactive, with links to information areas appearing as they mention certain key phrases; reaction stories of close ones are provided to show the effects of the patient's condition on others, in addition to one video of Dr Angela Allen, MD, whose responses are common to every video. These stories all concern women, except in the case of Patrick, whose video focuses equally, if not more so, on his spouse than himself. Full transcriptions of two individuals analysed: Caroline and Patrick are provided (Appendix 3.0). As time elapses while viewing the patient videos, various links appear which take the patients to a different section of the website, ultimately serving as a link to information regarding the medication.

Each video is carefully shot to ensure that the patient appears as isolated as possible. A constant metaphor throughout is that of 'consumption', usually used to describe severe conditions, traditionally tuberculosis and more recently AIDS (Sontag, 1978; Sontag, 1989). Similarly, the metaphor of a lack of 'opening up' is frequent, with Caroline explaining that she just wishes to 'curl up'. Every scene from the patient ends with the realisation that they must seek help and 'work with' their doctor in order to overcome bipolar disorder. Though visiting their doctor is likely to be beneficial, the website is advising this on their terms, with the links appearing along the video timeline redirecting the patient to pro-Seroquel XR pages (such as the doctor discussion guide). Similarly, the presence of numerous adverts for Seroquel XR makes the patient aware of the product, which they may idealise as the solution. This is relevant because 'working with (their) doctor' means doing so with a Seroquel XR toolkit, allowing the company to take advantage of the patient's state through a combination of emotive advertising and interactive content (eDTCA).

Kress and Van Leeuwen's (2006) concept of 'the gaze' is important when considering the doctor in the videos (Figure 4.7), who attempts to create a positive relationship with the viewer through a combination of positive facial expressions and body language, in addition to fluent speech with pauses only for emphasis (as opposed to the patients). She is helped by a setting which demonstrates knowledge (reading glasses and book, many volumes, a computer), in addition to positivity, as it is daylight, contrasting the evening setting in the two stories discussed.



Figure 4.6: Individual 'stories' from Seroquel XR website.



Figure 4.7: Still capture of Angela Allen, MD at the beginning of a 'story'.

The Abilify site contains a link to the latest online commercial, which is transcribed in the Appendix (see 4.4). Although issues have previously been raised concerning a lack of clarity regarding side effects and benefits (see Figure 4.8), there are similarities, but also distinct differences in the constitution of the online advertisement. Although the commercial targets those using Abilify for depression, it aims to generalise depression as a low mood,

failing to give any information regarding the condition itself. Similarities between the profiles of those suffering from bipolar disorder, depression and schizophrenia, particularly in how the individual feels have been demonstrated (Iwamoto et al., 2004), with Abilify marketed as a treatment for all three related conditions. As highlighted earlier, individual feeling plays a crucial role in the potential diagnosis of mental illness, and as such, more information respecting the illness itself should be given.

The commercial is in the style of a cartoon, with Abilify represented through a bright blue anthropomorphic letter 'A', corresponding to the product logo; the antidepressant, which is also anthropomorphic, but generalised with an Rx symbol (chemical reaction), possesses a dull, faded orange colour. In the animated image, the generic medication initially struggles to lift the paper on the patient's desk; with the help of the Abilify figure, they are able to overcome this. Again, the branded product is presented as the hero, apparently able to assist in the lifting of a weight considered light (paper), which is encountered throughout the day. The paper is a familiar object which represents daily life: an initial struggle which is overcome by adding Abilify, the alliterative slogan the commercial closes with. In addition to the transition from an unhappy to positive facial expression, subtle changes occur, with the (again) female patient's blouse, shirt and even face brightening up due to Abilify's assistance. Similarly to the Seroquel XR discussion guide, the current treatment is devalued by its inability to carry the weight of everyday life, with Abilify serving as the new option.

| Statements   | Problem  |
|--|--|
| Direct to consumer ad  |  |
| Benefit (complete text)  |  |
| "After 6 weeks on an antidepressant, I was still struggling with my depression."  If you have been on an antidepressant for at least 6 wk and are still struggling with depression, having ABILIFY added to your antidepressant may help with unresolved symptoms in as early as 1–2 wk.                                 | Neither the ad nor brief summary provide<br>any data on benefit  |
| ABILIFY is a prescription drug used to treat depression in adults as add-on  |  |
| treatment to an antidepressant when an antidepressant alone is not enough.   |  |
| Side effects (excerpt)   |  |
| Antidepressant symptoms can increase suicidal thoughts and behavior in children,<br>teens, and young adultshigh fever, rigid muscles, shaking, confusing,<br>sweating or increased heart rate and blood pressure, these may be signs of<br>a rare by potentially fatal condition, called neuroleptic malignant syndrome. | No explicit organization of side effects and no data<br>on frequency due to the drug.  |
| Commons side effects in adults in clinical trials (>10%) include nausea, vomiting, constipation, headache, dizziness, an inner sense of restlessness or need to move (akathisia), anxiety and insomnia).   | Akathisia—a severe restlessness that makes it hard t<br>keep still—is downplayed by inclusion in a list with<br>common symptom side effects like headache. |
| Medication guide   |  |
| Benefit (complete text)  |  |
| None (other than mention of indication)  | No discussion of benefit   |
| Side effects (excerpt)   | No explicit organization of side effects and no data   |
| Common side effects with ABILIFY in adults include:<br>nausea  | on frequency due to the drug.  |
| vomiting constipation  |  |
| headache   |  |
| dizziness  |  |
| inner sense of restlessness/need to move (akathisia)   | Akathisia is downplayed by inclusion in a list with  |
| anxiety  | common symptom side effects like headache.   |
| insomnia   |  |
| restlessness   |  |

Quoted text is shown in bold.

Figure 4.8: Table containing problems with a 2012 Abilify print DTCA (Schwartz & Woloshin, 2013: 3)

During the commercial, multiple areas of everyday life are targeted, with Abilify always at hand to help in both a work and family setting (as was seen in Seroquel XR's 'stories'). The commercial illustrates how Abilify can drive achievement (seen through the character's success in a business environment) which was not previously present, though

little reference is made to the product's medical benefits, mirroring Schwartz and Woloshin's (2013) findings. There is a noticeable lack in explicit health information within the eDTCA studied, with this often superseded by emotive devices in order to generate irrational associations between the consumer and the product.

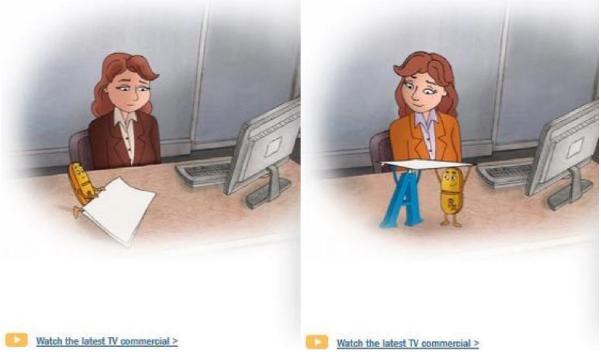


Figure 4.9: Animated image of Abilify's latest commercial.

# **5: Conclusion**

The study reveals that both Abilify and Seroquel XR are advertised as the solution to the patient's bipolar depression, with the condition lacking comprehensive description and a focus on the product. Though the patient is encouraged to speak to and 'work with' their doctor, this constant theme of unity is supported by links to other website content which is biased towards either product, with doctor discussion guides asking closed questions which present the product in a positive manner.

From the content provided, it appears that pharmaceutical companies will use eDTCA for ethical purposes, though only if this drives commercial gain. Although the subverting of patient-doctor roles may be an extreme view to take, a rise in patient 'knowledge' as a result of eDTCA is dangerous due to the lack of medical information contained in advertisements, which is often replaced with persuasive devices in order to emphasise product superiority, rather than allowing the transmission of beneficial information. Rather than providing the patient with relative condition-specific information, the content studied appears to promote the product as a solution to a problem which has not yet been fully explained. As such, eDTCA has the ability to misguide patients by utilising persuasive methods in order to gain financial profit.

# References

7.pdf> [Accessed 27 December 2013].

- Alam, E. S. K., & Jeffries, L. (2008). *Seroquel and Seroquel XR (quetiapine fumarate):* Clinical Overview on Weight Gain. [online] Available at: <a href="http://psychrights.org/research/Digest/NLPs/Seroquel/090303Docs/Rak%20Dep%20Ex%20">http://psychrights.org/research/Digest/NLPs/Seroquel/090303Docs/Rak%20Dep%20Ex%20</a>
- Arnold, D. G., & Oakley, J. L. (2013). 'The politics and strategy of industry self-regulation: The pharmaceutical industry's principles for ethical direct-to-consumer advertising as a

deceptive blocking strategy', Journal of Health Politics, Policy and Law 38(3): 505-544.

- Atkinson, N. L., Saperstein, S. L. and Pleis, J. (2009). 'Using the internet for health-related activities: findings from a national probability sample', Journal of Medical Internet Research 11(1): e4.
- Chancellor, B., & Chatterjee, A. (2011). 'Brain branding: When neuroscience and commerce collide', *American Journal of Bioethics Neuroscience* 2(4): 18-27.
- Chin, M. H. (2013). 'The patient's role in choice of medications: Direct-to-consumer advertising and patient decision aids', *Yale Journal of Health Policy, Law and Ethics* 5(2): 771-784.
- Donohue, J. M., Cevasco, M., & Rosenthal, M. B. (2007). 'A decade of direct-to-consumer advertising of prescription drugs', *The New England Journal of Medicine* 357(7): 673-681.
- Frosch, D. L., Grande, D., Tarn, D., & Kravitz, R. L. (2010). 'A decade of controversy: Balancing policy with evidence in the regulation of prescription drug advertising', *American Journal of Public Health* 100(1): 24-32.
- Fox, S., & Jones, S. (2009). *Americans' pursuit of health takes place within a widening network of both online and offline sources*. The Social Life of Health Information. [online] Available at:
- <a href="http://www.pewinternet.org/~/media//Files/Reports/2009/PIP\_Health\_2009.pdf">http://www.pewinternet.org/~/media//Files/Reports/2009/PIP\_Health\_2009.pdf</a> [Accessed 27 December 2013].
- Gao, K., Kemp, D. E., & Calabrese, J. R. (2008). 'Antipsychotic-induced extrapyramidal side effects in bipolar disorder and schizophrenia', *Journal of Clinical Psychopharmacology* 28(2): 203-209.
- Halliday, M. A. K. (1985). Language as a Social Semiotic. London: Edward Arnold.
- Higgins, E. T. (1998). 'Promotion and prevention: Regulatory focus as a motivational principle'. In M. P. Zanna (ed.), *Advances in Experimental Social Psychology*. New York: Academic Press, pp. 1-46.
- Holmer, A. F. (1999). 'Direct-to-consumer prescription drug advertising builds bridges between patients and physicians', *Journal of the American Medical Association* 281(4): 380-382.

IMS Health. (2009). *Total US Promotional Spend by Type*, 2009. [online] Available at: <a href="http://www.imshealth.com/deployedfiles/imshealth/Global/Content/StaticFile/Top\_Line\_Data/PromoU">http://www.imshealth.com/deployedfiles/imshealth/Global/Content/StaticFile/Top\_Line\_Data/PromoU</a> pdate2009.pdf> [Accessed 21 December 2013].

IMS Health. (2013). *IMS Health Midas*. [online] Available at: <a href="http://www.drugs.com/stats/top100/2013/q3/units">http://www.drugs.com/stats/top100/2013/q3/units</a> [Accessed 23 December 2013].

Kirschbaum, K. M., Muller, M. J., Malevani, J., Mobascher, A., Burchardt, C., Piel, M., & Hiemke, C. (2008). 'Serum levels of aripiprazole and dehydroaripriprazole, clinical response and side effects', *The World Journal of Biological Psychiatry* 9(3): 212-218.

Kress, G., & Van Leeuwen, T. (2006). *Reading Images: The Grammar of Visual Design*. London: Routledge.

Kuehn, B. M. (2010). 'FDA weighs limits for online ads', *Journal of the American Medical Association* 303(4): 311-313.

Liang, B.A., & Mackey, T. K. (2011). 'Prevalence and global health implications of social media in direct-to-consumer drug advertising', *Journal of Medical Internet Research* 13(3): e64.

Liebert, R. (2010). 'Syntactic peacekeeping: of bipolar and securization', *Women's Studies Quarterly* 38(3&4): 325-342.

Mackey, T. K., & Liang, B. A. (2012). 'Globalization, evolution and emergence of direct-to-consumer advertising: Are emerging markets the next pharmaceutical marketing frontier?', *Journal of Commercial Biotechnology* 18(4): 58-64.

Mansfield, P. R., & Mintzes, B (2003). 'Direct-to-consumer advertising is more profitable if it is misleading', *New Zealand Medical Journal* 116(1182).

Marcus, R. N., Owen, R., Kamen, L., Manos, G., McQuade, R. D., Carson, W. H., & Aman, M. G. (2009). 'A placebo-controlled, fixed-dose study of aripiprazole in children and adolescents with irritability associated with autistic disorder', *Journal of the American Academy of Child & Adolescent Psychiatry* 48(11): 1110-1119.

Matthews, J. T., & Glass, L. (2013). 'The effect of market-based economic factors on the adoption of orphan drugs across multiple countries', *Therapeutic Innovation & Regulatory Science* 47(2): 226-234.

Maubach, N., & Hoek, J. (2005). 'New Zealand general practitioners' views on direct-to-consumer advertising (DTCA) of prescription medicines: A qualitative analysis', *Journal of the New Zealand Medical Association* 118(1215).

Mintzes, B., Barer, M. L., Kravitz, R. L., Bassett, K., Lexchin, J., Kazanjian, A., Evans, R. G., Pan, R., & Marion, S. A. (2003). 'How does direct-to-consumer advertising (DTCA) affect prescribing? A survey in primary care environments with and without legal DTCA', *Canadian Medical Association Journal* 169(5): 405-412.

Mintzes, B. (2012). 'Advertising of prescription-only medicines to the public: does evidence of benefit counterbalance harm?', *Annual Review of Public Health* 35: 259-277.

Moynihan, R., Heath, I., & Henry, D. (2002). 'Selling sickness: The pharmaceutical industry and disease mongering', *British Medical Journal* 324(7342): 886-891.

O'Hara, K. (2010). 'Is banning direct-to-consumer advertising consistent with bioethical principles?', *Journal of the American Academy of Physician Assistants* 23: 54-56.

Orizio, G., Rubinelli, S., Schulz, P. J., Domenighini, S., Bressanelli, M., Caimi, L., & Gelatti, U. (2010). "Save 30% if you buy today". Online pharmacies and the enhancement of peripheral thinking in consumers', *Pharmacoepidemiology and Drug Safety* 19: 970-976.

Pines, W. L. (1999). 'A history and perspective on direct-to-consumer promotion', *Food and Drug Law Journal* 54(4): 498-518.

Roter, J. (2000). 'The enduring and evolving nature of the patient-physician relationship', *Patient Education and Counseling* 39(1): 5-15.

Schwartz, L. M., & Woloshin, S. (2013). 'The drug facts box: Improving the communication of prescription drug information'. *Proceedings of the National Academy of Sciences* 110(3) [online] Available at: <a href="http://www.dhwebteam.org/informulary/wp-content/uploads/Improving-communication-of-drugs-PNAS-2013.pdf">http://www.dhwebteam.org/informulary/wp-content/uploads/Improving-communication-of-drugs-PNAS-2013.pdf</a> [Accessed 2 January, 2014].

Sontag, S. (1978). *Illness as Metaphor*. New York: Farrar, Straus and Giroux.

Sontag, S. (1989). AIDS and Its Metaphors. New York: Farrar, Straus and Giroux.

Stremersch, S., Landsman, V. and Venkataraman, S. (2013). 'The relationship between DTCA, drug requests, and prescriptions: uncovering variations in specialty and space', *Marketing Science* 32(1): 89-110.

Sumpradit, N., Ascione, F. J., & Bagozzi, R. P. (2004). 'A cross-media content analysis of motivational themes in direct-to-consumer prescription drug advertising', *Clinical Therapeutics* 26(1): 135-154.

Timmermans, S., & Oh, H. (2010). 'The continued social transformation of the medical profession', *Journal of Health and Social Behavior* 51(1): 94-106.

Toop, L., & Richards, D. (2004). 'Physicians' negative views of direct-to-consumer advertising (DTCA): The international evidence grows', *New Zealand Medical Journal* 117(1195).

Wikihow. (2008). *How to Diagnose Bipolar Disorder*. [online] Available at: <a href="http://www.wikihow.com/Diagnose-Bipolar-Disorder">http://www.wikihow.com/Diagnose-Bipolar-Disorder</a>> [Accessed 21 December, 2013].

Wilkes, M. S., Bell, R. A., & Kravitz, R. L. (2000). 'Direct-to-consumer prescription drug advertising: trends, impacts and implications', *Health Affairs* 19(2): 110.

# **Appendix**

# 2.0: Wikihow profiles for users contributing to the article 'How to Diagnose Bipolar Disorder'.

The profiles of two of the five contributors did not contain any information. The following three users had made the latest changes to the article.



Chris H Chris Hadley lives in wikiHow HQ. has been on wikiHow over 6 years! Website: http://www.twitter.com/chrishadley







E-mail Chris H

I'm part of the wikiHow team. I work primarily behind the scenes supporting the wikiHow community in a variety of ways. My work includes guiding development of our mobile applications, using web analytics to help us make wikiHow work better for visitors and community members, and helping our non-English wikis to grow. On wikiHow, you may find me patrolling changes, assisting community members, and occasionally writing new articles.

http://www.wikihow.com/User:Chris-H

E-mail Chlofo



# Chlofo Chloe has been on wikiHow over 3 years! Website: http://twitter.com/chlofooo



Hi there, I'm a junior at Georgetown University and in my third year of interning at wikiHow. In my free time, I like to travel to (and get lost in) new places, peruse the New York Times, and read grammar books. http://www.wikihow.com/User:Chlofo









Student ID: 4161540

Just another wikiHow background WikiGnome, contributing in ways such as redirect updates, reviewing image licensing, category organization, and adding related wikiHows. I work best on wikiHow by myself and in my own bubble. I dislike being praised for what I do here because my contribution energy comes from learning new things from others; more like a never-ending cycle of wiki RAOK.

# My wikiHow Stats

#### My Readership:

The 1,948 articles I have started have been read 22,580,489 times.

#### Articles I Have Started:

The most recent 5 articles I have started are:

- Make Newspaper Hats in Gaia Online
- 2. Make Paper Hats in Gaia Online
- Decide if a Child Is Ready for Preschool
- Edit wikiHow with Pets Around
- Use The Roost Café in Animal Crossing: New Leaf

#### Recent Changes Patrol:

I have patrolled 322,121 edits on wikiHow.

Update

http://www.wikihow.com/User:Maluniu

#### 3.0: Bipolar Depression Video Series

The following are transcriptions of the videos found at <a href="http://www.seroquelxr.com/bipolar-disorder/bipolar-depression-videos.aspx?ux=1">http://www.seroquelxr.com/bipolar-disorder/bipolar-depression-videos.aspx?ux=1</a>. Each transcription begins with an italicised description of the setting and non-verbal events which take place throughout the scene.

*Transcription conventions key:* 

(1): Pause in seconds, (.): hearable pause less than 0.2 seconds, <u>example</u>: stressed word, (link x): Annotation which appears along the video timeline, linking to an information page on the website.

#### 3.1a: Patrick: Spouses can be affected

Patrick is sat alone at a table in a restaurant, moving his food around one handed with a fork. It is dark and he continues to stare through the restaurant blinds and out of the window. This continues for seven seconds before he begins to speak. Throughout the scene, a couple are sat behind him conversing with occasional laughter. The camera alternates its focus between him and his surroundings throughout the scene. Patrick wears a creased shirt with a poorly knotted tie. He exhibits very negative body language throughout: facing down

with his shoulders hunched and with a negative facial expression. At the end of the scene, when mentioning 'and with my doctor', he maintains his gaze until the shot ends, apparently attempting to give a weak smile.

I can't keep doing this (0.5) letting my wife down (1.5) (link 1). All she wants to do is have dinner and a <u>conversation</u> and (1.3) it shouldn't be too much to ask (3) but sometimes (0.4) (link 2), I can't (.) seem to pull it together (2) I've always had a hard time (0.5) opening up (1) but when I'm feeling (0.4) consumed (link 3) by my <u>bipolar depression</u> it's even harder (1.5) I need to figure out (.) how to talk about what I'm feeling. I need to (0.5) <u>open up</u> and have meaningful conversations (link 4) with my wife (.) and with my doctor

Link 1: 'More about maintaining relationships'

Link 2: 'Learn more about living with bipolar disorder'

Link 3: 'Track your moods and goals'

Link 4: 'Working with your doctor'

# 3.1b: Amy: Patrick's wife: I try to be supportive

Amy is at home, a cabinet displays family photos in the background. Amy spends the majority of the scene sat at a table, moving from her chair once to enter an empty sitting room. Amy does not look at the camera throughout. The scene concludes with Amy sat at the table, facing downwards. At the scene's conclusion, upon mentioning the phrase "works with his doctor", her head raises, and she ends the scene with a hopeful smile.

It's so hard to reach <u>Patrick</u> when he's (.) suffering (2) so (.) you know, I try to be supportive (1.5) but it's tough when he <u>can't engage</u> (2) I feel like the relationship with his doctor is the key (1.2) I need to encourage him to  $\underline{\text{make}}$  the  $\underline{\text{most}}$  of it (1.5) when Patrick works with his doctor (.) we start to see a difference

# 3.2a: Caroline: Friendships may be hard

Caroline is standing alone by a ticket booth outside a cinema. Her hands are nervously positioned together in front of her body. The scene shows others arriving at the theatre together with friends and happy couples walking, panning towards them throughout while Caroline stands alone. She does not look at the camera or smile throughout the video, only giving a glimmer of a smile when she says "I need to talk to my doctor".

I thought (0.5) the worst was behind me (3) (link 1) I thought I had <u>learned</u> (.) how to handle my bipolar depression (2) and now (1) here I am (1.5) feeling consumed by my bipolar depression again (link 2) (2) when I feel like this (1) I don't wanna (.) talk to <u>friends</u> (2) (link 3) I just wanna <u>curl up</u> (1.5) do <u>nothing</u> until these feelings go <u>away</u> (4) I need to talk to my <u>doctor</u> (link 4) (2.5) I need to (.) better understand what my treatment options are and (.) what type of support is available

Link 1: 'Download questions to ask your doctor'

Link 2: 'Track your moods and goals'

Link 3: 'Working with your doctor'

Link 4: 'Make the most of your treatment plan'

# 3.2b: Sandy: Caroline's friend: I try to not take it personally

Caroline stands outside the same theatre and appears to be looking for someone, standing with two tickets in her hand. Others are entering the theatre and she appears disappointed throughout.

<u>Caroline</u> and I have been friends for <u>years</u> (.) and she has struggled with (.) this disease for almost as long as I've known her (2) when she keeps cancelling plans with me at the last minute (0.7) I (.) try (.) not to take it <u>personally</u> but (0.5) it's hard

#### 3.3: Angela Allen, MD: Disclose everything

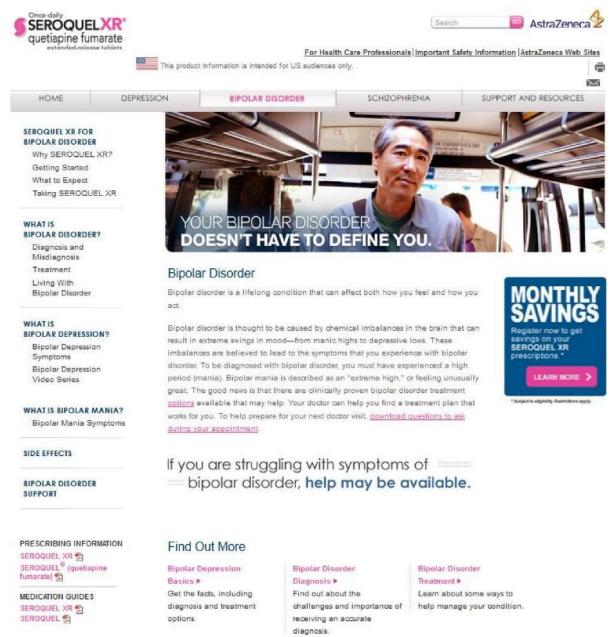
Angela Allen, MD is sat in a casual office setting, with a bookcase in the background containing large volumes. It is a bright day outside, with the camera panning closer to Dr Allen as the scene progresses. Her gaze is fixed towards the camera throughout, smiling at the viewer while she remains constantly in focus.

One of the reasons that bipolar disorder challenging to <u>treat</u> (.) is that patients may not disclose everything that their <u>doctor</u> needs to know (0.5) patients are sometimes <u>unclear</u> about their symptoms (.) or they're reluctant to reveal <u>personal</u> things (0.4) but they shouldn't be (0.5) I <u>often</u> encourage patients to use resources like discussion guides (.) to <u>make sure</u> that I'm able to gather as <u>much</u> information as I can (.) from patients and their loved ones

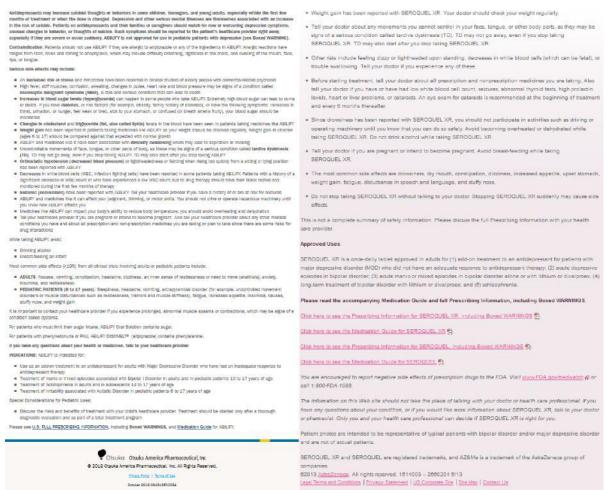
# 4.0: Abilify and Seroquel XR website content



4.1: Abilify bipolar sub-site homepage content (runs down the page (from left to right), beginning below figure. 4.2 and ending at the appropriate section of appendix 4.3).



4.2: Seroquel XR bipolar sub-site homepage content from top of page; content is followed by the appropriate safety information in Appendix 4.3.



4.3: Safety information for both Abilify (left) and Seroquel XR (right), located at the bottom of every page on each website.

#### 4.4: Latest Abilify online commercial advertisement

'My antidepressant worked hard to help with my depression; but sometimes I still struggled to get going, even get through the day. So I was honest with my doctor: I told her I'd been feeling stuck for a long time. She said, that for some people, an antidepressant alone only helps so much, and suggested we add Abilify (aripriprazole). She said that, by taking both, some people have symptom improvement as early as one to two weeks. I wish I'd talked to my doctor sooner.

Abilify is not for everyone. Call your doctor if your depression worsens, or you have unusual changes in behaviour, or thoughts of suicide; antidepressants can increase these in children, teens and young adults. Elderly dementia patients taking Abilify have an increased risk of death or stroke. Call your doctor if you have high fever, stiff muscles and confusion, to address a possible life-threatening condition. Or if you have uncontrollable muscle movements, as these can become permanent. High blood sugar has been reported with Abilify and medicines like it, and in extreme cases can lead to coma or death. Other risks include increased cholesterol, weight gain, decreases in white blood cells, which can be serious, dizziness (WTF), seizures, trouble swallowing and impaired judgement or motor skills.

Since adding Abilify, I feel better. Abilify and my antidepressant make a pretty good team. Ask your doctor about a free trial of Abilify and go to AddAbilify.com.'