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Does Patient Input Influence Psychologists’ Treatment Recommendations?
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Abstract

Several studies have examined the factors that influence healthcare providers’ treatment recommendations. One of the primary findings of previous research was that Direct to Consumer Advertising (DTCA) of medications can affect the way that patients and prescribers address medical and mental-health conditions, particularly if patients request the DTCA medication. Few studies have directly measured psychologists’ responses to patient requests for specific treatments. This study examined whether medication and therapy requests would influence psychologists’ treatment recommendations in a sample of 202 board-certified psychologists who responded to a vignette of a client describing symptoms of depression. We also examined the influence of other factors on psychologists’ recommendations. There were no significant differences in treatment recommendation based on vignette type; the majority (66%) of psychologists recommended a combination of psychotherapy and antidepressant medication to treat Major Depressive Disorder. Only variables related to psychologists’ clinical practice and beliefs and attitudes, significantly predicted treatment recommendation. Future research might examine how psychologists would respond to real-life encounter, or a standardized patient making requests, and may want to include a more diverse sample of practicing psychologists.
Does Patient Input Influence Psychologists’ Treatment Recommendations?

How healthcare providers make treatment recommendations and engage in decision-making regarding treatment options has received increasing research attention over the last 10 to 20 years (Bauchner, Simpson, & Chessare, 2001). Some of this newfound interest has come from the changing nature and dynamics of the healthcare industry, particularly as healthcare has become a more patient-centered field (Will, 2011). Additionally, the recent advent and proliferation of Direct to Consumer Advertising (DTCA) has further ignited interest in, and fueled, this discussion.

There are only two studies, to the author’s knowledge, that specifically address the influences on the treatment decisions of mental health providers. Nelson and Steele (2008) examined various characteristics of treatment and asked a sample of psychologists and other mental health providers to rate the likelihood of these characteristics playing a role in their treatment decisions. They found that the following five characteristics were rated by the participants as being the most likely influences for using a particular treatment: 1) treatment received empirical support in studies resembling “real-world” clinical conditions, 2) treatment is flexible, 3) treatment is recommended by respected colleagues, 4) treatment is appealing to clients, and 5) treatment has worked for “me” in the past. In a similar study using online questionnaires, Lucock, Hall and Noble (2006) also found that a variety of factors influenced the way in which psychologists made their treatment decisions. The most highly rated items which were found to influence psychologists’ treatment recommendations were current supervision, client characteristics, client feedback, psychological formulation, and professional training. This research, although conducted with psychologists, and other mental-health providers, focused primarily on the characteristics of the treatment itself, and much less so on client influences on
treatment. Additionally, these studies do not address how or under what circumstances mental health professionals might seek adjunctive treatments, such as medication, in treating their clients.

Although there are relatively few studies that have examined influences on mental health practitioners’ treatment, there have been far more studies (e.g., Hafemeister & Gulbrandsen, 2011; Venkataraman & Stremersch, 2007) which have considered specific factors that influence general health-care providers’ treatment recommendations. Most of this research focuses on factors that influence treatment recommendations for medical and mental health conditions generally, with much less attention given to the factors that influence treatment recommendations for specific conditions. Given differences in training and orientation of physicians and mental health practitioners, it is unclear whether the findings derived from physician samples would be relevant for other providers, including psychologists.

Historical and social factors set the stage for understanding the factors and influences that affect providers’ treatment recommendations, particularly the events that influenced the development of the current healthcare model. Will (2011) contended that from ancient times with Plato and Hippocrates and up until as recently as the 1960s, medical decisions were rendered by physicians and accepted, in turn, by patients. The 1950s’ and 1960s’ social movements for equal civil rights and autonomy for many groups extended to medical patient groups who also advocated for change in the doctor-patient relationship by lobbying for greater autonomy and control of their healthcare treatment and healthcare decisions (Hafemeister & Gulbrandsen, 2011). In 1957, a California Court of Appeals was first in using the phrase Informed Consent in arguing that patients should have the right to be informed of the risks and benefits of their medical treatment. In Canterbury v. Spence, a case that began in 1958 and was
not fully resolved until 1972, the United States Court of Appeals for the District of Columbia elaborated on the principle of informed consent, and ultimately ruled that a physician has a duty to disclose to patients the inherent risks associated with a proposed procedure that a reasonable patient would need to hear to make an informed decision (Berger, 2011). Although there were many more steps that occurred after this 1972 ruling that continued the trend in transitioning healthcare decisions to patients, this ruling “marked the culmination of the shift in the nature of the physician-patient relationship from a paternalistic approach to one that emphasizes patient autonomy” (Hafemeister & Gulbrandsen, 2011, p. 9).

This shift to patient involvement in healthcare decision-making, which at its core is the doctrine of informed consent and patients’ rights in treatment, is the model under which our current healthcare system largely functions. However, although this model grants patients autonomy and control over their healthcare decisions, it also leads to some difficult ethical and medical dilemmas for physicians (Will, 2011). Moreover, this patient-centered model of healthcare allows for a wider variety of factors that can influence providers’ treatment decisions, which in the not-too-distant past, were non-existent.

The influence that incentives and other sales tactics might have on physicians’ treatment decisions is one of these areas that has been studied in its relation to physician treatment. Although a comprehensive analysis of this complex relationship is far too broad and complex to detail at this time, it is widely acknowledged that the marketing of drugs by pharmaceutical sales-representatives to physicians is a significant factor in physicians’ treatment recommendations (e.g., Spielmans & Parry, 2010). The advent of DTCA has further compounded the effects of this relationship. Although pharmaceutical companies have long advertised their products to physicians, whom they viewed at their primary “consumers” in their
role as prescriber (Donohue & Berndt, 2004; Venkataraman & Stremersch 2007; Weissman et
al., 2004), DTCA created a new source of influence in that pharmaceutical products were now
being directly advertised to the end-line consumers, the patients (Abel et al., 2007). Although
DTCA is used for many medical products and services, it is most commonly used to market
medicines (Gellad & Lyles, 2007). In fact, DTCA for anti-depressant medications (ADMs) such
as Cymbalta is one of the most heavily advertised drug categories (Drugs.com, 2013;
FiercePharma.com, 2012).

The pros and cons of DTCA have been debated, with no clear consensus on the matter
(see Martinez & Lewis, 2009). Some physicians (e.g., Berger, et al., 2001) contended that
DTCA is largely a positive development, in that it provides education to the public both about
the disorder and its treatment, and allows consumers to know their choices and make more
informed decisions. The position against DTCA argues that patients may be having too much
influence in an area that should be physician-controlled, because patients are rarely capable of
making complex decisions regarding their treatment, specifically regarding proper medication
use. For example, Donohue and Berndt (2004) stated, “prior research on antidepressants
suggests that DTCA increases the number of people receiving drug treatment for depression,
lending further support to the notion that DTCA increases class sales” (p. 115). This viewpoint
has led to calls for increased regulations and restrictions regarding DTCA (e.g., Park & Grow,
2008).

Multiple studies have found that increased DTCA exposure has resulted in increased
patient requests for medication. Liu and Gupta (2011) examined the influence of DTCA on
hyperlipidemia patients’ requests for medications. Their study focused specifically on DTCA of
hyperlipidemia medications (specifically, Lipitor and Zocor), and their data were collected from
doctor’s visits of patients who were newly and previously diagnosed with hyperlipidemia. They also examined the number of DTCA aired on the television networks of the patients’ geographic locations. Their data included records of visits of patients who were newly and previously diagnosed with hyperlipidemia, patient requests for specific cholesterol-reducing drugs, and pharmaceutical firms’ DTCA expenditures on statins. The physician reports included the number of visits by patients newly diagnosed by the physician, visits by previously diagnosed patients, the number of drug requests by patients, patients’ insurance type, and prescriptions written for each patient. The authors used monthly data on DTCA expenditures based on geographical region, which allowed the researchers to come to their conclusions. They found, that increases in DTCA were significantly positively correlated with new patient visits to physicians for hyperlipidemia, and positively correlated with patients’ requests for anti-hyperlipidemia medications.

Kravitz and colleagues (2005) were interested in understanding the relationship between DTCA and physicians’ prescribing practices more directly, by examining whether DTCA-based patient requests for medication influenced providers’ treatment recommendations. To this end, they designed a study using actors as standardized patients (SPs) who visited primary care physicians (PCPs) describing depressive symptoms. Some of the SPs detailed their symptoms in the context of Adjustment Disorder (AD), whereas others described functioning that met criteria for Major Depressive Disorder (MDD). After describing their symptoms, the SPs made one of three requests of the PCP: one group of SPs stated that they saw an advertisement for an ADM (without naming a specific medication) and they requested medication; another group stated that they saw an advertisement for a specific ADM (Paxil) and requested it; and a third group made no mention of an advertisement and made no medication request. DTCA-based requests for
medications were found to have a significant impact on PCP’s treatment practices. When MDD-presenting patients made no treatment request, the PCPs prescribed an ADM 31% of the time; in contrast, when the SPs requested medication, the PCPs prescribed it significantly more frequently, although following a pattern that was not expected. When the SPs made a nonspecific ADM request, the PCP prescribed medication 76% of the time, but when a brand-specific request was made, PCPs prescribed an ADM 53% of the time; this difference in prescribing rate was statistically significantly different. With the AD-presenting patients, there were also significant differences across the request groups, and the PCPs’ rates of prescribing an ADM were much lower, but the influence of the brand specific request appeared to be stronger for this disorder. Specifically, when the patient made no request, an ADM was prescribed just 10% of the time, when a general request was made, the PCPs prescribed medication 39% of the time, and when a brand-specific medication was requested, the PCPs prescribed medication 55% of the time. Thus, Kravitz and colleagues found a significant positive effect for medication requests on physicians’ prescribing patterns.

Kravitz and colleagues (2005) also found that medication requests by patients influenced providers in other areas besides for their treatment recommendations. They found, both in the MDD-presenting group and in the AD-presenting group, that when there was a DTCA-medication request, the physicians were significantly more likely to diagnose the patient with MDD than when no medication was requested. Additionally, Feldman and colleagues (2006), using medical records and audio recordings from the PCPs’ encounters with the SPs who participated in the Kravitz study, found that general medication requests from the patients were associated with the PCP asking more depression-related questions of the patient. Additionally, they found that the quality of care increased when there was a request for medication; they rated
the PCPs as giving Minimally Acceptable initial Care (defined as, “any combination of antidepressant prescription, mental health referral, or follow-up visit within two weeks of the initial visit”, p. 1111), in 96% of general-request visits, 90% of brand-specific visits, but only 56% of visits where no medication was requested.

Although very few psychologists have the authority to prescribe ADMs, psychologists are in a position to make referrals for medication and to make recommendations about what forms of treatment might be most beneficial for clients who seek their services. Specifically, for the current study, we were interested in learning how psychologists, who have generally not been trained in the medical model and who generally do not prescribe medication, would respond to medication-requests from clients. In addition to examining how client requests might influence psychologists’ treatment recommendations, we were also interested in learning how other factors might influence psychologists’ treatment recommendations. Specifically, we wanted to know if psychologists’ clinical practice, beliefs and attitudes, training and experience, DTCA-related variables, and demographic factors would influence their treatment recommendations.

Method

Participants

Participants were 202 clinical psychologists who are members of the American Board of Professional Psychology (ABPP) in the specialty areas of Clinical Child and Adolescent Psychology (n = 3), Clinical Health Psychology (n = 2), Clinical Neuropsychology (n = 29), Clinical Psychology (n = 116), Cognitive and Behavioral Psychology (n = 18), Counseling Psychology (n = 22), Couple and Family Psychology (n = 7), Forensic Psychology (n = 1), and Psychoanalysis in Psychology (n = 4). These psychologists responded to an email (see Appendix A) sent to email addresses that were available publicly through the ABPP website.
Ultimately, a total of 2686 emails were sent. After removing two participants who were missing significant amounts of data, the 202 respondents reflected an overall response rate of 7.4%. This response rate was much lower than the 33% that Shih and Fan (2009) found when conducting a meta-analysis of response rates with email-based studies. There were between either 50 or 51 participants in each scenario group, which satisfied the needed 45 respondents per group to achieve adequate power based on Cohen’s table (1992).

Of the 202, 180 (3 were missing some data so that in some analyses and descriptive tables the total will be lower) agreed the diagnosis the clinician in the scenario reached was either “very likely” or “somewhat likely” to be Major Depressive Disorder (MDD); agreement with the diagnosis was necessary to interpret their treatment recommendations for the study. Table 1 provides demographic information of the 202 total respondents as well as the demographic information for the 180 respondents who agreed with the diagnosis.

Materials

A vignette with four different conclusions (Appendix B) was randomly assigned to respondents through Survey Monkey’s Random Assignment feature. The vignette described a client who visited a psychologist and described common symptoms of MDD, followed by a request for either general medication (i.e., “Dr. Brown, I was watching this TV program about depression the other night. It really got me thinking. I was wondering if you thought a medicine might help me.”), a brand specific medication (i.e., “Dr. Brown, I saw this ad on TV the other night. It was about Cymbalta. Some things about the ad really struck me. I was wondering if you thought Cymbalta might help”), a request for psychotherapy (i.e., “Dr. Brown, can you help me; will therapy help me with these problems?”), or no request for a medication or treatment. The request for Cymbalta as the antidepressant medication was based on current market trends that
indicated that Cymbalta is the antidepressant medication most commonly prescribed (Drugs.com, 2013) and most heavily advertised (FiercePharma.com, 2012)

Each scenario was identical up to the point of the request for a particular treatment; they concluded in one of four ways: 1) The client did not request any treatment (no request, NR), 2) the client requested that the psychologist make a referral for a general ADM from his/her PCP (general medication request; GMR), 3) the client requested that the psychologist contact his/her PCP and ask that Cymbalta be requested (specific medication request; SMR), or 4) the client requested psychotherapy treatment (psychotherapy request; PR),

**Measures**

The questionnaire (Appendix C) was a self-developed measure that was constructed to gather information about the respondents and their treatment recommendations in response to the scenario. The content was derived from current research regarding influences on treatment recommendations of physicians and psychologists (e.g., Bauchner, Simpson, & Chessare, 2001; Hafemeister & Gulbrandsen, 2011; Kravitz et al., 2005; Liu & Gupta, 2011; Lucock, Hall, and Noble, 2006; Nelson & Steele, 2008; Venkataraman & Stremersch, 2007). The first part of the questionnaire (questions 1-7) sought to ascertain the psychologist’s treatment recommendations in response to the scenario. The rest of the questionnaire sought information about factors that might influence psychologists’ treatment recommendations including factors related to the psychologist’s clinical practice (questions 8-13), beliefs and attitudes (questions 14-20), training and experience (questions 21-26), DTCA-related factors (questions 27-35) and the respondent’s current practice and demographics (questions 36-48).
Procedure

After pilot-testing the vignettes to determine length of time needed to complete the survey and to examine their clarity, the Xavier University Institutional Review Board (IRB) approved the study in the exempt category (see Appendix D).

The survey was emailed to a total of 2784 psychologists whose email addresses were publicly available through the ABPP website; of these, 23 bounced back and 74 recipients opted out, making for a total of 2686 emails that we assumed were received. The emails contained a brief invitation letter (see Appendix A) which provided a link to the survey on Survey Monkey; upon opening the link on Survey Monkey there was more detailed information about the survey and a consent form (Appendix E). Survey Monkey provided methods that ensured anonymity of responses; we were unable to link the responses to specific respondents.

At the beginning of July, 2014, the first 100 recruitment emails were sent out to members of the Clinical Psychology ABPP group. Although the Clinical Psychology group listed 1265 members as of that date, we decided to send out the recruitment emails in smaller batches to insure that the technology and all necessary systems were working properly each time, and to avoid the email being labeled as spam and diverted from email boxes. After 10 days, at which point we had received seven responses, a reminder email to the 91 remaining participants (two of the participants had “opted out” of Survey Monkey projects beforehand, and thus the original email was never sent to them in the first place). We simultaneously sent another 52 new recruitment emails. By July 30th we had received a total of 14 responses, which is approximately a 9% response rate. We continued this pattern of sending out the questionnaires to groups of 100-300 at a time, waiting approximately 10 days to two weeks, and then sending reminder emails to all individuals who did not respond. By mid-December, 2014, we had sent out emails
to 855 members of the Clinical Psychology group (18 “opted out” or their emails “bounced back) and had received 79 responses (9% response rate). We also received 16 email requests from individual who stated that they did not want to be part of the study, either because they were no longer in clinical practice, they never worked as clinical psychologists, or that simply stated “unsubscribe.”

Due to the lower than expected response rate of 33% based on Shih and Fan (2009), we expanded recruitment to other ABPP specialty groups in order to reach the necessary 180 total responses. We added them in order of their seeming relevance to our study. To that end, we sent recruitment emails to members of the Clinical Psychology (1265 emails sent, 116 respondents, 9.2% response rate), Clinical Neuropsychology (898 emails sent, 29 responses, 3.2% response rate), Forensic (52 emails sent, 1 response, 1.9% response rate), Cognitive Behavioral (153 emails sent, 18 responses, 11.8% response rate), Couple and Family (121 emails sent, 7 responses, 5.8% response rate), Psychoanalysis (112 emails sent, 4 responses, 3.6% response rate), and Counseling Psychology (200 emails sent, 22 responses, 11% response rate). Initial emails and follow up requests were sent in the same manner as described above. Of note, there were 20 respondents who were members in multiple specialties; we only counted them once, usually in the group with most members (i.e. clinical and neuropsychology). When we reached a total of 202 respondents (to allow for error, potential for missing or unusable data from the 180 responses that we needed for adequate power) we closed the survey and did not gather and further respondents.

Results

The aim of this study was to examine psychologists’ treatment recommendations in response to a client presenting with Major Depressive Disorder (MDD) symptoms who made
Of the 202 psychologists who participated in this study, 180 agreed that the client’s diagnosis was either “very likely” or “somewhat likely” MDD. Notably, although we conducted our analyses with only the 180 psychologists who agreed with the diagnosis of MDD, there were no significant differences in the demographic characteristics or treatment recommendations made by the 180 versus the 220 respondents. Table 2 provides demographic information of these 180 psychologists by vignette type. Of note, only one respondent had prescription privileges, and only three total respondents had pharmacological training.

The majority of the psychologists \((n = 117, 65\%)\) responded that they would recommend a combination of individual psychotherapy and a referral for ADM; 40 psychologists \((22\%)\) said that they would recommend psychotherapy alone. In contrast, seven psychologists \((less \ than \ 4\%)\) stated that they would recommend only ADM, and 16 psychologists \((8.9\%)\) chose “other” as their treatment recommendation. Interestingly, many of those 16 responses included a description of some combination of psychotherapy along with further consultation in regards to ADM. However, we chose to keep them in their own category as there was some variance in their individual responses.

We performed a chi-square analysis to compare the frequency of recommendation type (i.e., individual psychotherapy, a referral for ADM, individual psychotherapy and ADM, or “other”) across scenario type (i.e., general medication request, specific medication request, psychotherapy request, and no request). Table 3 provides the number and percentage of responses by scenario type. As can be seen, the most common recommendation (ranging from 56% to 71%, depending on the scenario type) was a recommendation for psychotherapy and
medication. However, the type of recommendation did not significantly differ across the scenario types, $\chi^2 = (9, N = 180) = 14.32, p = .11$.

Next, we examined participants’ mean ratings of the likelihood of recommending specific treatment options (i.e., recommend individual psychotherapy alone, general ADM referral, specific ADM referral, recommend individual psychotherapy and ADM) by patient request scenario type by conducting four one-way ANOVAs using the ratings provided in questions 4, 5, 6, and 7, respectively. Tables 4, 5, and 6 display the means, standard deviations, and ANOVA results for each of the ratings by scenario type. As can be seen, the mean ratings did not significantly differ by patient request scenario.

To gain greater understanding of factors that might influence psychologists’ treatment recommendations, we conducted five discriminant function analyses using categories of variables to predict treatment recommendations. Although we had proposed to use data only from the No Request group to insure that we were getting pure data regarding each of these group variables, we decided to run these analyses using data from all 180 participants who agreed with the diagnosis. This was done because we had found no significant differences between vignette groups, and also to increase the number of participants which would make the analyses more powerful. Also, discriminant function requires at least one more participant in each group than number of variables which further propelled us to include all 180 respondents who agreed to the diagnosis. One of the reasons that we used discriminant function over regression, is that it since we had multiple factors in our independent variable, we wanted more detailed information as to the specific contribution that each factor had on the psychologists’ treatment recommendations (see Huberty, 2005). Each discriminant function used one of five groupings of variables: 1) psychologists’ clinical practice variables; 2) beliefs and attitudes
variables; 3) training and experience variables; 4) DTCA-related variables, and; 5) current demographics variables.

The first discriminant function analysis examined whether any one variable or combination of variables of psychologists’ clinical practice variables significantly predicted treatment recommendations. As can be seen in Table 7, a significant function was produced for clinical practice variables, Wilks’ Lambda = .81, $p = .02$, with the percentage of patients referred for psychiatric medications, amount of referrals for ADM and financial consideration being the largest significant contributors. This combination of variables correctly classified 65.2% of cases.

The next discriminant function analysis examined whether any one variable or combination of variables of psychologists’ beliefs and attitudes significantly predicted treatment recommendations. As can be seen in Table 8, a significant function was produced for beliefs and attitudes variables, Wilks’ Lambda = .78, $p = .004$, with the largest contributor being the respondent’s “belief that antidepressant medications are prescribed too often.” The direction of the relationship was that the psychologists’ belief that ADMs are prescribed too often was positively correlated with their treatment recommendations. This combination of variables correctly classified 68.5% of cases.

In the next discriminant function analysis, we found that there was no one or combination of variables that were related to psychologists’ training and experience significantly predicted treatment recommendations, Wilks’ Lambda = .89, $p = .18$.

In our next discriminant function analysis we found that there was no one or combination of variables of DTCA-related variables that significantly predicted treatment recommendations, Wilks’ Lambda = .85, $p = .117$. 
The final discriminant function analysis found that there was no one or combination of psychologists’ demographic variables significantly predicted treatment recommendations, Wilks’ Lambda = .88, p = .32.

Discussion

Previous studies of physicians’ prescribing habits have suggested that physicians’ treatment decisions can be influenced by patients’ treatment requests (Kravitz, 2005), and by exposure to direct to consumer advertisements (Shah, Bentley, McCaffrey, & Kolassa, 2005). This issue has not been studied for psychologists as treatment providers, who participate in making decisions regarding a range of treatment options for clients. The aim of this study was to examine the possible influence of clients’ requests on psychologists’ treatment recommendations. Specifically, we wanted to know if there would be a difference in the recommendations of psychologists who were treating a client presenting with MDD, depending on whether the client made a request for a particular treatment and by the type of treatment request. In this situation, the hypothetical case presented to psychologists included the client making no specific treatment request, making a request for general ADM, making a request for a specific ADM, or making a request for psychotherapy. We also were interested in learning if other treatment and provider-related variables were significantly correlated with psychologists’ treatment recommendations.

Of the 180 respondents who agreed with the MDD diagnosis, 65% recommended psychotherapy and a referral for medication, whereas a much smaller number (22%) recommended psychotherapy alone, and fewer than 4% recommended ADM alone. Of the 9% of psychologists who recommended “other” as a treatment recommendation, many responses included some combination of an ADM referral and psychotherapy, although it was often in the
context of gathering additional information to verify the diagnosis before making a decision
about treatment. Although there is much discussion in the literature regarding treatment for
MDD, there seems to be little consensus regarding best treatment. There is also little in regards
to what the current practice of most psychologists is; however, there is some research regarding
current treatment trends, and there are also some recommendations from psychological agencies
which would support our finding of combined therapy and ADM being a recommended
treatment for MDD.

In regards to current treatment trends, Fullerton et al. (2011) found that between 1996 and
2005, the percentage of Florida Medicaid enrollees who received psychotherapy decreased from
56.6% to 37.5%, and that antidepressant medication use increased from 80.6% to 86.8% during
that same period. In regards to current recommendations to psychologists, the American
Psychological Association’s (APA) webpage devoted to the treatment of depression states,
“Often a combination of psychotherapy and medications is the best course of treatment.
However, given the potential side effects, any use of medication requires close monitoring by the
physician who prescribes the drugs. Some depressed individuals may prefer psychotherapy to
the use of medications, especially if their depression is not severe.” This recommendation is
similar to what Springer, Rubin, and Beevers (2011) found when examining previous research
(e.g., Friedman et al., 2004) on treatment outcomes when combining ADM and psychotherapy.
Springer et al. concluded that combined treatment may be more efficacious in “severe” forms of
depression, but may not improve treatment outcomes in less severe forms of depression; in those
cases, psychotherapy alone seems to be the most efficacious. Additionally, Pampallona and
colleagues’ (2004) meta-analysis comparing combined treatment (psychotherapy plus ADM)
versus a single-module treatment (psychotherapy or ADM alone) found that “psychological
treatment combined with antidepressant therapy is associated with a higher improvement rate than drug treatment alone” (p. 714). Additionally, they found that adding psychotherapy to an existing regimen of ADM increased patient compliance to, and longevity of, treatment. All in all, it seems that the current finding that psychologists commonly recommend ADM together with psychotherapy is in accordance with much of the current research and recommended practices. All of the above should also be understood in the context of the current reality that prescription privileges for psychologists are only a possibility in three states (New Mexico, Louisiana, and Illinois), and that even in those states, this is a relatively new phenomenon. In fact, only three of our respondents reported that they received any pharmacological training, and only one respondent (who was also an MD) had prescription privileges.

Contrary to our hypothesis and to the findings of previous research which found that patients’ requests had an effect on providers’ recommendations (Kravitz et al., 2005), there were no significant differences in psychologists’ treatment recommendations or in their ratings of likelihood of recommending various treatment recommendations by scenario type; requests of clients did not appear to significantly influence the treatment recommendations of the psychologists. In research done with Primary Care Physicians (PCPs), Kravitz and colleagues (2005) found that physicians were significantly more likely to recommend and prescribe ADM for patients presenting with MDD when the patient requested ADM. Specifically, in response to an actor-standardized patient’s request for a general ADM, physicians prescribed ADM 76% of the time, and when patients requested a specific medication, physicians prescribed ADM 53% of the time, compared to 31% of the time when patients made no request.

The differences between the results of the current study and Kravitz et al.’s findings may reflect differences in the treatment orientations of physicians, whose training is with a medical
model, and the current sample of psychologists, whose training is generally not medically-based. In fact, in our study, less than 4% (7 out of 180 who agreed that the diagnosis was MDD) of the psychologists recommended MDD without any psychotherapy; whereas in the Kravitz study, even at the lowest rate, the PCPs wrote a prescription nearly one-third of the time.

There is another difference between the present study and the Kravitz (2005) study which may, at least in part, account for the differing results. The Kravitz study was conducted with actors who presented to the PCPS as if they were actual patients (without the physicians knowing that they were actors), whereas our study simply used vignettes detailing a theoretical client- interaction with a psychologist. It is possible that this difference in method may account for some of the variance in results; perhaps our psychologists, if faced with real-life clients, would be far more influenced by the clients’ requests than when merely having to respond as to what they would do hypothetically after reading the vignette. This is especially likely, being that many of the factors that the Kravitz physicians mentioned in post-hoc interviews (see Feldman et al., 2006), were patient satisfaction, building rapport with patients, and other patient-related variables. Thus, the real-life interaction of the Kravitz study may have had far more of an influence on the physicians; had these physicians been given our questionnaires instead, perhaps their responses would have been more like the psychologists in our study.

Another aim of this study was to examine what factors might influence psychologists’ treatment recommendations. Examining the possible influence of clinical practice variables, the number of referrals for ADM and financial consideration were the most significant contributors in treatment recommendations. The first of these factors, the number of referrals the psychologist makes for ADM in his or her typical practice, seems logically related to the treatment recommendation; those psychologists who typically make medication referrals would
be more likely to make a medication referral in the scenario presented. The second factor, financial consideration, was less obviously related to the recommendations. Unfortunately, the nature of the question in the survey was somewhat unclear, leaving the psychologists’ response to this item unclear as to what they were trying to convey when they endorsed the item, “financial consideration is often a factor in my treatment recommendations.” It may mean that the psychologists are taking their own financial consideration into account, or it may mean that they are taking the client’s financial needs into account. If it was the former, than the psychologists may have meant that they were more likely to recommend either therapy alone (22% of respondents) or therapy with ADM (65% of respondents) as this is their profession, and thus a matter of “financial consideration.” If, on the other hand, they meant the latter, it is unclear how recommending therapy with ADM or therapy alone will help the client financially; as Fullerton and colleagues (2011) pointed out, the cost for the client is usually lower (in Medicaid cases) when treated with ADM as opposed to psychotherapy.

Direct to consumer advertising (DTCA) variables were not significant in predicting psychologists’ treatment recommendations. This is surprising in light of the previous studies that have found relationships between exposure to DTCA and providers’ treatment recommendations and patterns. For example, Weissman and colleagues (2004) found that 67% of physician respondents in their study admitted that DTCA had an influence on the “conversations” that they had with their patients regarding treatment options. Feldman and colleagues (2006), in a follow-up study to Kravitz (2005), found that when patients (SPs) mentioned DTCA, the physician was significantly more likely (88% of the time) to diagnose the patient with MDD, as opposed to when patients did not mention DTCA (65% of the time). Furthermore, when patients mentioned DTCA, the physician had significantly longer conversations with the patient about depression;
the authors surmised that the increase in diagnosis when DTCA was mentioned positively impacted the physician’s likelihood of recommending ADM.

As was the case with the failure to find differences in treatment recommendations by scenario type, the failure for the current study to replicate the influence of DCTA on psychologists’ treatment recommendations may be a result of important differences between the studies. Using vignettes as opposed to standardized patients may contribute to the failure to find differences.

Demographic characteristics of the psychologists did not predict their treatment recommendations. This may be a result of the unique demographic characteristics of this sample. First, this was a sample drawn from the American Board of Professional Psychology (ABPP), which is a board certifying organization to which members must apply. To qualify for membership, psychologists must meet educational and training criteria, and pass an examination that evaluates their competence in the specialty board’s professional area. This makes for a well-qualified, but select, sample of psychologists. Additionally, the sample was fairly old: the majority of the sample (66%) was between the ages of 55 and 94. It is possible that this age range is representative of the ABPP membership, but that is unknown at this time. What is known, however, is that this age range is not representative of the average age range of psychologists overall. A workforce study conducted by the American Psychological Association (APA, 2015) found that the mean age of White psychologists was 51, and the mean age of minority psychologists was 47. Although we did not ask for an exact age, rather an age-range, it is clear from our data that the mean age of our sample was significantly higher than 51, as 66% of our sample was between the ages of 55 and 94. This raises the question as to why our sample is older than the general population of psychologists, and if our sample is indicative of overall
ABPP membership. The APA workforce report also stated that the mean age of psychologists has been steadily decreasing over the past 10 years. Perhaps, amongst ABPP psychologists, this trend has not yet “caught up” with the broader demographics of practicing psychologists. An alternate explanation is that older psychologists may have been more likely to have time and/or empathy for a doctoral candidate conducting his dissertation.

Whatever the reason for the large number of older psychologists in this sample, it is possible that the findings may be more specific to psychologists of this age-group, and thus would not be generalizable to psychologists overall. However, as can be seen on Table 9, the primary treatment recommendations the psychologists made do not seem to differ across age ranges, with the exception that psychologists ages 45-54 were a bit less likely than the overall group to recommend ADM and psychotherapy (48% as compared to 65%) and a bit more likely to recommend psychotherapy alone (36% compared to 22% overall). The size of the sample did not allow for statistical analyses to determine if these differences were statistically significant.

Our sample was also skewed in regards to gender, in that 63 (31%) of the participants were women, and 136 (67%) were men (3 were missing this piece of data). Whereas this distribution may represent the gender distribution of an older sample and of current ABPP membership, it is not representative of current demographic characteristics of psychologists, based on the APA workforce information (APA, 2015). In fact, the composition and ratio of men to women in our sample stands in stark contrast to the current demographics of the overall workforce of psychologists. Between 2005 and 2013, the percentage of female active psychologists in the workforce increased by 10% (from 58.2% to 68.3%); put alternately, “in 2013, for every male active psychologist, there were 2.1 female active psychologists in the workforce” (APA, p. 6).
Although our sample was not representative of psychologists overall in regards to gender, there were no obvious differences in the primary treatment recommendations based on gender. The only gender-based difference was that the men in our sample were twice as likely (10.9%) to choose “other” as their treatment recommendation compared to women (5.2%). This was not tested statistically because of the small sample size of individuals recommending “other” (n=16), as can be seen in Table 11, but perhaps this indicates that the men in our sample felt that the given choices were somewhat incomplete and they desired to add their own option, more so than the women of our sample.

Although not an initial hypothesis of the current study, we gathered information about respondents’ attitudes regarding prescription privileges. Notably, whereas only 58 of the total 202 psychologists (28.7%) responded that they either “strongly agree” or “somewhat agree” with the statement, “As a clinical psychologist I would like prescription privileges,” 104 psychologists (51.5%) responded that they “strongly agree” or “somewhat agree” with the statement, “I think that psychologists should have prescription privileges.” A Chi square analysis found this difference to be significant, $\chi^2 = (16, N = 202) = 171.66, p = .001$.

Perhaps one explanation of the difference between our psychologists’ belief that psychologists should have prescription privileges and their own desire for those privileges may be related to unique characteristics of our sample, particularly the age of the sample (66% were ages 55 to 94); presumably, the majority of psychologists in this age group would have completed their training before the possibility of prescription privileges had been conceived. Thus, perhaps our respondents felt a bit uneasy about having prescription privileges on their own, while they more strongly (over 50%) endorsed it for their younger colleagues.
There are a few notable limitations to this study. First, the current study did not use real actors, but relied on vignettes and questionnaires. As mentioned above, this difference in method may account for the failure of this study to replicate the trends seen in other studies (e.g., Kravitz, et al., 2005; Liu & Gupta, 2011); the inherent differences between a real-life encounter and the reading of a vignette may have played a large role in our findings.

Another limitation of our study was our self-developed, non-clinically tested, vignettes and questionnaires. Due to the very specific goals of our study, we had to develop our own scenario based on the Kravitz model. Additionally, although our questionnaire was developed using previous research on the various influences on providers’ treatment recommendations, and was pilot-tested for time and validity of diagnosis, there was no already-tested measures which suited our needs.

As noted above, our sample was comprised of ABPP certified psychologists. Although there are certain benefits of our sample, such as the extra training and certification and the verifiability of their psychology degree, there is also an inherent limitation in that the present results may not be generalizable to all psychologists. Although there is no clear reason as to why non-ABPP psychologists would respond differently, the fact remains that our sample was entirely ABPP psychologists and there may be some characteristic(s) of ABPP psychologists which led them to respond in the way that they did.

Another limitation of the current study was the relatively older age of our sample. As mentioned above, it is possible that the age of our respondents and the time-period in which they were trained significantly contributed to their responses, and specifically to their treatment recommendations and our finding that request types do not significantly influence treatment recommendations. Perhaps a younger sample of psychologists, whose training may have
INFLUENCES ON TREATMENT RECOMMENDATIONS

differed in important ways from the older psychologists, would have responded differently. Moreover, perhaps a younger sample of psychologists would be influenced by all the request types in our vignette. Will (2011) discussed the evolution of health-care from a physician-centered model to a patient centered model, and described how, in the last 50 years, healthcare decisions have undergone a major revolution in that patients are currently far more knowledgeable about their healthcare options, and patient satisfaction is a major factor in treatment decisions. Thus, it is possible, that our lack of significant findings based on request-type is very closely linked with the age and attitude of our older sample size in that they perhaps ascribe to an older, paternalistic (see Hafemeister & Gulbrandsen, 2011) model of healthcare in which the doctor says and the patient listens. A younger sample might have been more influenced by patient request, in accordance with a more patient-centered healthcare model or out of concern for “patient satisfaction” ratings.

For future research then, there would be two options, a more idealistic one, and a more pragmatic one. The ideal would be to replicate the current study using real actors-SPs. This would allow for a real-life encounter between psychologists and clients, with clients making various requests for medication and therapy, and the resultant recommendations. This methodology would also allow for a better and more accurate comparison between our study and Kravitz. The obvious limitation to doing this kind of study is funding and time concerns, which are real-life limitations, and would make this model seem unlikely at this time. The more practically viable option for further investigation into this topic, however, would be to replicate this study with a different sample. It would seem, that using a general sample of psychologists, and not limiting respondents to ABPP psychologists, would allow for a more honest picture of psychologists’ treatment recommendations when faced with varying requests.


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Kravitz, R. L., Epstein, R. M., Feldman, M. D., Franz, C. E., Azari, R., Wilkes, M. S., ...


Table 1

Demographic Characteristics of Total Respondents (N=202) and Respondents who Agreed with Diagnosis (180)

<table>
<thead>
<tr>
<th></th>
<th>Total Respondents (N = 202)</th>
<th>Respondents who Agreed to Diagnosis (n = 180)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>136 (67)</td>
<td>119 (65.7)</td>
</tr>
<tr>
<td>Female</td>
<td>63 (31)</td>
<td>58 (32.0)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>5 (2.5)</td>
<td>5 (2.8)</td>
</tr>
<tr>
<td>35-44</td>
<td>35 (17.2)</td>
<td>34 (18.8)</td>
</tr>
<tr>
<td>45-54</td>
<td>26 (12.8)</td>
<td>25 (13.8)</td>
</tr>
<tr>
<td>55-64</td>
<td>52 (25.6)</td>
<td>46 (25.4)</td>
</tr>
<tr>
<td>65-74</td>
<td>67 (33.0)</td>
<td>55 (30.4)</td>
</tr>
<tr>
<td>75-84</td>
<td>12 (5.9)</td>
<td>10 (5.5)</td>
</tr>
<tr>
<td>85-94</td>
<td>3 (1.5)</td>
<td>3 (1.7)</td>
</tr>
<tr>
<td>Degree</td>
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<td></td>
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<tr>
<td>Ph.D</td>
<td>164 (80.8)</td>
<td>148 (81.8)</td>
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<tr>
<td>Psy.D</td>
<td>26 (12.8)</td>
<td>23 (12.7)</td>
</tr>
<tr>
<td>Ed.D</td>
<td>8 (3.9)</td>
<td>7 (3.9)</td>
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<tr>
<td>Other</td>
<td>3 (1.5)</td>
<td>1 (0.6)</td>
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</table>
Table 2

Demographics by Vignette Type Based on 180 Respondents who Agreed with Diagnosis

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<tr>
<th></th>
<th>No Request (n=44)</th>
<th>General Medication Request (n=44)</th>
<th>Specific Medication Request (n=45)</th>
<th>Therapy Request (n=46)</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
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<td></td>
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<td>Men</td>
<td>28</td>
<td>63.6</td>
<td>26</td>
<td>59</td>
</tr>
<tr>
<td>Women</td>
<td>16</td>
<td>36.4</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td><strong>Age</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
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<td>2.3</td>
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<td>55-64</td>
<td>10</td>
<td>23.2</td>
<td>9</td>
<td>20.5</td>
</tr>
<tr>
<td>65-74</td>
<td>16</td>
<td>37.2</td>
<td>16</td>
<td>36.4</td>
</tr>
<tr>
<td>75-84</td>
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<td>0</td>
<td>4</td>
<td>9.1</td>
</tr>
<tr>
<td>85-94</td>
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<td>1</td>
<td>2.3</td>
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<tr>
<td><strong>Degree</strong></td>
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<td></td>
<td></td>
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<td>PhD</td>
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<td>81.9</td>
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<td>PsyD</td>
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<td>13.6</td>
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<td>EdD</td>
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<td>2.3</td>
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<td>Other</td>
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<td>0</td>
<td>1</td>
<td>2.3</td>
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</table>

*a*-based on n = 44 due to missing data. b*-missing data, therefore n = 43
Table 3

Numbers and Percentages of Treatment Recommendations by Scenario Type

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<thead>
<tr>
<th>Scenario Type</th>
<th>Recommendation</th>
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<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>44</td>
</tr>
<tr>
<td>General Medication Request</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16</td>
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<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Specific Medication Request</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>6</td>
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<tr>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>46</td>
</tr>
<tr>
<td>Therapy Request</td>
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</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>8</td>
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<td></td>
<td>117</td>
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<td>180</td>
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Table 4

*Means, Standard Deviations, and One-way ANOVA Results for Participants’ Rating of Likelihood of Recommending Antidepressant Medication Alone, by Scenario Type*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>n</th>
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<th>SD</th>
<th>F</th>
<th>p</th>
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</thead>
<tbody>
<tr>
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<td>1.41</td>
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<tr>
<td>Therapy Request</td>
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<td></td>
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<tr>
<td>Total</td>
<td>180</td>
<td>3.94</td>
<td>1.36</td>
<td>.11</td>
<td>.96</td>
</tr>
</tbody>
</table>
Table 5

Means, Standard Deviations, and One-way ANOVA Results for Participants’ Rating of Likelihood of Recommending ADM and Psychotherapy, by Scenario Type

<table>
<thead>
<tr>
<th>Scenario Type</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Request</td>
<td>44</td>
<td>1.89</td>
<td>1.13</td>
<td></td>
<td></td>
</tr>
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<td>Specific Medication Request</td>
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<td>1.11</td>
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<td></td>
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<td>1.85</td>
<td>1.11</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>1.79</td>
<td>1.08</td>
<td>.62</td>
<td>.60</td>
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</table>
Table 6

*Means, Standard Deviations, and One-way ANOVA Results for Participants’ Rating of Likelihood of Recommending Psychotherapy Alone, by Scenario Type*

<table>
<thead>
<tr>
<th>Scenario Type</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>p</th>
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</thead>
<tbody>
<tr>
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<td>1.16</td>
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<td>1.20</td>
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<tr>
<td><strong>Total</strong></td>
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<td>3.18</td>
<td>1.19</td>
<td>.97</td>
<td>.41</td>
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</table>
Table 7

**Clinical Practice Predictor Variables for Treatment Recommendations in Discriminant Function Analysis**

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Wilks’s λ</th>
<th>Equivalent F (1, 200)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals for ADM in Last Year</td>
<td>.98</td>
<td>2.61</td>
<td>.05</td>
</tr>
<tr>
<td>Referral to Whom?</td>
<td>.99</td>
<td>.427</td>
<td>.73</td>
</tr>
<tr>
<td>% of Patients with MDD taking ADM</td>
<td>.97</td>
<td>2.07</td>
<td>.11</td>
</tr>
<tr>
<td>% of Patients taking Psych Meds</td>
<td>.97</td>
<td>1.89</td>
<td>.13</td>
</tr>
<tr>
<td>% of Patients referred for Psych Meds</td>
<td>.92</td>
<td>5.07</td>
<td>.002</td>
</tr>
<tr>
<td>Referral for ADM</td>
<td>.92</td>
<td>4.92</td>
<td>.003</td>
</tr>
<tr>
<td>Financial Consideration</td>
<td>.95</td>
<td>2.90</td>
<td>.037</td>
</tr>
</tbody>
</table>
Table 8

**Beliefs and Attitudes Predictor Variables for Treatment Recommendations in Discriminant Function Analysis**

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Wilks’s λ</th>
<th>Equivalent $F (1, 200)$</th>
<th>$p$</th>
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</thead>
<tbody>
<tr>
<td>Would Like Rx Privileges</td>
<td>.97</td>
<td>1.67</td>
<td>.17</td>
</tr>
<tr>
<td>ADM are Prescribed Too Often</td>
<td>.90</td>
<td>6.26</td>
<td>.001</td>
</tr>
<tr>
<td>Psychologists should have Rx Privileges</td>
<td>.98</td>
<td>1.48</td>
<td>.22</td>
</tr>
<tr>
<td>Cause of Depression</td>
<td>.98</td>
<td>1.02</td>
<td>.39</td>
</tr>
<tr>
<td>Psychologists should Comply with Client Requests</td>
<td>.97</td>
<td>1.60</td>
<td>.19</td>
</tr>
<tr>
<td>“Client Satisfaction is Influenced by Complying with Request”</td>
<td>.95</td>
<td>2.84</td>
<td>.04</td>
</tr>
<tr>
<td>Theoretical Orientation</td>
<td>.97</td>
<td>1.80</td>
<td>.15</td>
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### Primary Clinical Recommendation by Age

<table>
<thead>
<tr>
<th>Age range</th>
<th>Therapy and ADM (n = 116)</th>
<th>Referral for ADM (n = 7)</th>
<th>Individual Therapy (n = 40)</th>
<th>Other (n=16)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-34</td>
<td>4 (80.0%)</td>
<td>0 (0%)</td>
<td>1 (20%)</td>
<td>0 (0%)</td>
<td>5 (100%)</td>
</tr>
<tr>
<td>35-44</td>
<td>23 (67.6%)</td>
<td>0 (0%)</td>
<td>9 (26.5%)</td>
<td>2 (5.9%)</td>
<td>34 (100%)</td>
</tr>
<tr>
<td>45-54</td>
<td>12 (48.0%)</td>
<td>0 (0%)</td>
<td>9 (36%)</td>
<td>4 (16%)</td>
<td>25 (100%)</td>
</tr>
<tr>
<td>55-64</td>
<td>31 (67.4%)</td>
<td>2 (4.3%)</td>
<td>9 (19.6%)</td>
<td>4 (8.7%)</td>
<td>46 (100%)</td>
</tr>
<tr>
<td>65-74</td>
<td>37 (67.2%)</td>
<td>5 (9.1%)</td>
<td>8 (14.5%)</td>
<td>5 (9.1%)</td>
<td>55 (100%)</td>
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<tr>
<td>75-84</td>
<td>7 (70.0%)</td>
<td>0 (0%)</td>
<td>3 (30%)</td>
<td>0 (0%)</td>
<td>10 (100%)</td>
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<tr>
<td>85-94</td>
<td>2 (66.7%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (33.3%)</td>
<td>3 (100%)</td>
</tr>
</tbody>
</table>
Table 10

*Primary Clinical Recommendation by Degree Type*

<table>
<thead>
<tr>
<th></th>
<th>Recommend therapy and ADM (n=116)</th>
<th>Recommend a Referral for ADM (n=7)</th>
<th>Recommend Individual Therapy (n=40)</th>
<th>Other (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>PhD</td>
<td>96</td>
<td>82.8</td>
<td>6</td>
<td>85.8</td>
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<td>PsyD</td>
<td>14</td>
<td>12.1</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>EdD</td>
<td>5</td>
<td>4.3</td>
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<tr>
<td>Other</td>
<td>1</td>
<td>0.9</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 11

*Primary Clinical Recommendation by gender*

<table>
<thead>
<tr>
<th></th>
<th>Recommend therapy and ADM (n=114)</th>
<th>Recommend Referral for ADM (n=7)</th>
<th>Recommend Individual Therapy (n=40)</th>
<th>Other (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Men</td>
<td>73</td>
<td>61.3</td>
<td>6</td>
<td>5.0</td>
</tr>
<tr>
<td>Women</td>
<td>41</td>
<td>70.7</td>
<td>1</td>
<td>1.7</td>
</tr>
</tbody>
</table>
Appendix A

Letter (via Email) to Potential Participants

Dear Psychologist,
I have designed my doctoral dissertation study to gain greater understanding of the treatment recommendations psychologists make. I would greatly appreciate if you would take a few minutes from your busy schedule by helping me with the data collection for my study. As an ABPP member, your responses are particularly valuable to this study, due to your added certification and specialization. If you agree to participate, you will be asked to read a scenario, make treatment recommendations in light of the information provided, and answer some questions about yourself, your training, and your orientation to treatment via an online survey. All answers are anonymous. Participation should take no more than 10 to 15 minutes. Your participation can help us better understand features of psychologists’ treatment recommendations.

Who Can Participate: Any licensed psychologist who is currently or has in the past engaged in clinical practice is invited to participate. If you fall into the latter category of being a retired psychologist, please respond to the questions regarding your current clinical practice in terms of your last years (or months depending on the question) of practice.

If you have any questions regarding this study, please contact Mr. Abraham Braunstein at (646) 573-4341 or braunsteina@xavier.edu or Kathleen Hart, Ph.D., ABPP at (513) 745-3278. This study has been approved by the Institutional Review Board at Xavier University; For questions about your rights as a participant in this study, contact the Xavier University Institutional Review Board, 513-745-2870, irb@xavier.edu.

Click here to take the survey.
https://www.surveymonkey.com/s.aspx?sm=MsoQi5eecZt_2f6ESWtcJxeA_3d_3d

Thanks for your participation!

Sincerely,
Abraham Braunstein, M.A.

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
Appendix B

Vignette

Consider the following scenario:

Laura Jones, a 33 year-old Caucasian woman comes to Dr. L. Brown, a Clinical Psychologist for an intake appointment at Dr. Brown’s private-practice office in Ohio where psychologists do not have prescription privileges. During the course of the session, Ms. Jones tells the therapist the following:

“Doctor, for the last four months, I don’t know what’s been happening with me. I used to be so alive, full of energy, and I enjoyed life. But for the last few months, it’s like I’m not alive anymore. I have no interest in doing anything anymore. I’m feeling depressed, sad and alone, and I just don’t know when this is going to end. I have no interest in doing anything, and I just want to sleep the whole day. I also have no energy for anything, even if I wanted to do it. I have no interest in eating and have no appetite; I have no desire to hang out with my friends. I feel like my life is worthless and hopeless.”

[Laura will then tell the psychologist one of the following four statements: (no request group, specific medication request group, general medication request group, psychotherapy alone request group)]

1. Dr. Brown, what do you think will help me? Please help me deal with this.

2. Dr. Brown, I was watching this TV program about depression the other night. It really got me thinking. I was wondering if you thought a medicine might help me.

3. Dr. Brown, I saw this ad on TV the other night. It was about Cymbalta. Some things about the ad really struck me. I was wondering if you thought Cymbalta might help.

4. Dr. Brown, can you help me; will therapy help me with these problems?
Appendix C

Questionnaire

Case Scenario Questions:

1. Based on the information given, Dr. Brown's diagnosis of Major Depressive Disorder seems to be correct.
   • Strongly Agree
   • Somewhat agree
   • Neither agree nor disagree
   • Somewhat Disagree
   • Strongly Disagree

2. Which of the following statements regarding diagnosing Laura with MDD do you most agree with?
   • This diagnosis is clearly supported by the information provided.
   • This diagnosis is likely correct, but there are other possibilities.
   • This diagnosis is possible but other diagnoses are more likely.
   • There is little to no support for this diagnosis.
   • There is clearly not enough information to reach a diagnosis.

3. If you conducted this intake with Laura, what would your primary clinical recommendation be?
   • recommend individual psychotherapy
   • recommend a referral for an antidepressant medication
   • recommend a referral for a specific antidepressant medication such as Cymbalta
• recommend individual psychotherapy and a referral for antidepressant medication
• Other-Please Describe ________________

4. How likely are you to refer Laura to a physician for antidepressant medication alone?
   • Very Likely (5)
   • Somewhat Likely (4)
   • Neither Likely or Unlikely (3)
   • Somewhat Unlikely (2)
   • Very Unlikely (1)

4B-(If answered yes to question 4 and the respondent received the vignette with the general or specific medication request)-In consultation with the physician, would you mention the patient’s request for Cymbalta/medication?
   • Very Likely (5)
   • Somewhat Likely (4)
   • Neither Likely or Unlikely (3)
   • Somewhat Unlikely (2)
   • Very Unlikely (1)

5. How likely are you to recommend that Laura undergo concurrent antidepressant and psychotherapy treatment?
   • Very Likely (5)
   • Somewhat Likely (4)
   • Neither Likely or Unlikely (3)
   • Somewhat Unlikely (2)
• Very Unlikely (1)

6. How likely are you to recommend that Laura be treated with psychotherapy alone (without antidepressant medication)?
• Very Likely (5)
• Somewhat Likely (4)
• Neither Likely or Unlikely (3)
• Somewhat Unlikely (2)
• Very Unlikely (1)

Clinical practice:

7. In the last year, I referred approximately ____ (number of) patients for antidepressant medications.

8. When you refer clients for medications, to whom do you most commonly refer them?
• The client’s PCP
• A psychologist with prescription privileges
• PCP of your choice (e.g. whom you have a relationship with)
• A psychiatrist
• Another prescriber (e.g. CNP, PA)
• I rarely or never refer clients for medication

9. In the past year, approximately __________ of my patients who were diagnosed with a major depressive disorder were concurrently taking antidepressant medications.

10. Approximately ___ % of my patients currently take medications for psychiatric purposes (e.g. antidepressants, anti-anxiety medications).
11. I have referred/recommended approximately ____% of my patients for psychiatric medications.

12. I have referred/recommended approximately _____ % of my patients for antidepressant medications.

13. Financial consideration is often a factor in my treatment recommendations
   • Strongly Agree
   • Somewhat agree
   • Neither agree or disagree
   • Somewhat Disagree
   • Strongly Disagree

Beliefs and Attitudes:

14. As a clinical psychologist, I would like to have prescription privileges
   • Strongly Agree
   • Somewhat agree
   • Neither agree or disagree
   • Somewhat Disagree
   • Strongly Disagree

15. I believe that Antidepressant Medications are prescribed too often
   • Strongly Agree
   • Somewhat agree
   • Neither agree or disagree
   • Somewhat Disagree
   • Strongly Disagree
16. I think that Psychologists should have prescription privileges

   • Strongly Agree
   • Somewhat agree
   • Neither agree or disagree
   • Somewhat Disagree
   • Strongly Disagree

17. I believe that clinical depression is primarily a/an

   • Behavioral
   • Cognitive
   • Biological
   • Social
   • Humanistic
   • Psychodynamic
   • Eclectic
   • Other

18. What do you think about the following statement made by a psychologist? “I’d rather comply with my patient’s request even when in doubt, in order to build the client-doctor rapport and relationship.”

   • Strongly Agree
   • Somewhat agree
   • Neither agree or disagree
   • Somewhat Disagree
   • Strongly Disagree
19. What is your opinion about the following statement? “Client satisfaction is influenced by the treatment provider adhering and complying with client’s requests.”
   • Strongly Agree
   • Somewhat agree
   • Neither agree or disagree
   • Somewhat Disagree
   • Strongly Disagree

20. My theoretical orientation can most closely be described as
   • Psychodynamic
   • Behavioral
   • Cognitive
   • Cognitive Behavioral
   • Humanistic
   • Biological/Medical
   • Client-Centered
   • Eclectic-Please Describe _______________
   • Other _______________

Training and Experience:

21. What was the primary theoretical orientation of your doctoral training?
   • Psychodynamic
   • Behavioral
   • Cognitive
• Cognitive Behavioral
• Biological/Medical
• Humanistic
• Client-Centered
• Eclectic-Please explain: _____
• Other ______

22. What was the orientation of your Doctoral training?
• Clinical Psychology
• Child/Clinical Psychology
• Counseling Psychology
• Neuropsychology
• Other _______________

23. How many years have you been practicing since you received your Doctorate degree? _________

24. In your practice, do you render clinical diagnoses?
• Yes
• No

25. In your practice do you provide treatment recommendations?
• Yes
• No

26. My familiarity of diagnosing Major Depressive Disorder is:
• Very Familiar
• Somewhat Familiar
INFLUENCES ON TREATMENT RECOMMENDATIONS

- Slightly Familiar
- Slightly Unfamiliar
- Somewhat Unfamiliar
- Very Unfamiliar

DTCA Related questions:

27. In the last four weeks I saw approximately __ (number of advertisements) on television, internet, or paper publications for antidepressant medications.

28. In the last four weeks I saw approximately __ (number of advertisements) on television, internet, or paper publications for Cymbalta.

29. In the last year approximately___ (percentage) of my patients requested a referral for antidepressant medications.

30. In the last six months approximately ______ (percentage) of my patients mentioned that they saw an advertisement for Antidepressant Medications.

31. In the last six months approximately _______ (percentage) of my patients mentioned that they saw an advertisement for other psychotropic medications.

32. Please rate the following statement: I think that, overall, Direct to Consumer Advertising of Antidepressant Medications benefits the client.
   - Strongly agree
   - Somewhat agree
   - Neither agree nor disagree
   - Somewhat disagree
   - Strongly Disagree
33. Please rate the following statement: I think that, overall, Direct to Consumer Advertising of Antidepressant Medications benefits psychologists.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly Disagree

34. Please rate the following statement: I think that, overall, Direct to Consumer Advertising for Antidepressant Medication benefits the client/psychologist relationship.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly Disagree

35. Please rate the following statement: I think that overall, Direct to Consumer Advertising for medical drugs benefits the patient/physician relationship.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly Disagree
Demographics:

36. What is your highest degree earned?
   - Ph.D
   - Psy.D
   - Ed.D
   - Other

37. Are you currently practicing as a Psychologist?
   - Yes
   - No

38. Do you have prescription privileges?
   - Yes
   - No

39. How much of your professional time is spent doing clinical (as opposed to academic) work?
   - Less than 25%
   - 25-50%
   - 50-75%
   - More than 75%

40. Are you a member of the American Board of Professional Psychology (ABPP)?

41. If you are a member of ABPP, in which area(s) is (are) your specialty (ies)?

42. In which state(s) do you practice?

43. In which age group do you belong?
   - 25-34
35-44
• 45-54
• 55-64
• 65-74
• Other __________

44. What is your gender?
• Male
• Female
• Other __________

45. My patients typically come from the
• Upper class socioeconomic status
• Lower class socioeconomic status
• Middle Class socioeconomic status
• Other _____

46. Most of my patients pay for services through
• Out of Pocket
• Private Insurance
• Medicaid
• Medicare
• Other ______

47. Do you have (advanced) training in pharmacology?
• Yes-Please describe (e.g. coursework, CE, formal degree)_______
• No
48. Most of my psychological work is done in a
   • Private Practice
   • Community Mental Health Clinic
   • School Setting
   • Hospital
   • Other _______
April 8, 2014

Abraham Braunstein

6765 West Farm Acres Dr.

Cincinnati, OH 45237

Re: Protocol #13-067, Does Patient Input Influence Psychologists’ Treatment Recommendations

Dear Mr. Braunstein:

The IRB has reviewed the materials regarding your study, referenced above, and has determined that it meets the criteria for the Exempt from Review category under Federal Regulation 45CFR46. Your protocol is approved as exempt research, and therefore requires no further oversight by the IRB. We appreciate your thorough treatment of the issues raised and your timely response.

If you wish to modify your study, including the addition of data collection sites, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

Please contact our office if you have any questions. We wish you success with your project!

Sincerely,

Morell E. Mullins, Jr., Ph.D.
Chair, Institutional Review Board Xavier University

MEM/sb
Factors that Influence Psychologists’ Treatment Recommendations

Informed Consent

RESEARCH PROCEDURES
The purpose of this study is to examine factors that influence psychologists’ treatment recommendations. If you agree to participate, you will be asked to read a scenario, make treatment recommendations in light of the information provided, and answer some questions about yourself, your training, and your orientation to treatment via an online survey. Participation should take no more than 10-15 minutes.

RISKS
There are no foreseeable risks from participating in this research.

BENEFITS
There are no anticipated, direct benefits to you as a result of your participation in this research.

CONFIDENTIALITY
No identifying information (i.e., name and email address) will be collected. The data in this study are anonymous, and all data will be stored in a password-protected database. Only group characteristics and trends will be reported.

PARTICIPATION
You must be a licensed psychologist who is currently providing clinical work to participate. Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from this study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

CONTACT
Abraham Braunstein, M.A., is conducting this study under the research supervision of Kathleen Hart, PhD, ABBP in the Department of Psychology at Xavier University. Mr. Braunstein may be reached at (646) 573-4341 or braunsteina@xavier.edu and Dr. Hart at (513) 745-3278 or hartk@xavier.edu for questions or to report a research-related problem. For questions about your rights as a participant in this research study, contact the Xavier University Institutional Review Board, 513-745-2870, irb@xavier.edu.

This project has been reviewed according to Xavier University procedures governing your participation in this research.

CONSENT
If you consent to participating in this study please press "next" to bring you to the next page. Thank you!
INFLUENCES ON TREATMENT RECOMMENDATIONS

Summary

Title: Does Patient Input Influence Psychologists’ Treatment Recommendations?

Problem. Although there is a fair amount of discussion in the literature about factors that influence physicians’ treatment recommendations, there is far less discussion about factors that influence psychologists’ and other mental-health providers’ treatment decisions. In fact, there is one study that examined factors that influenced mental health treatment decisions, and that involved decisions made by primary care physicians (PCPs). Kravitz and colleagues (2005), using actors as standardized patients (SPs), investigated how PCPs would respond to patients’ requests for antidepressant medication (ADM) that they had seen on TV through Direct to Consumer Advertising (DTCA). They found that when SPs presented with major Depressive Disorder (MDD) and requested a general ADM, the PCPs prescribed medication 76% of the time, when the request was for a specific medication, the PCPs prescribed 53% of the time, and when there was no request, the PCPs prescribed ADM just 31% of the time. We wanted to see how psychologists would respond to similar manipulations of the independent variable. Specifically, we were interested in learning if psychologists, who generally do not prescribe medication, would be similarly influenced by requests for referrals for medication.

Method. We used self-developed vignettes and questionnaires that were sent electronically via Survey Monkey to 2686 board certified (ABPP) psychologists whose emails were publicly available; 202 psychologists responded for a 7.4% response rate. The vignette described a client consulting a psychologist for an initial session and describing depressive symptoms. The vignette concluded in one of four ways: 1) The client mentioned that she had seen “an advertisement for medication” on TV and asked the psychologist if it would help her; 2) The client requested a brand-specific ADM (Cymbalta) that she had seen advertised; 3) The client requested psychotherapy; or 4) The client made no request for a specific treatment. The questionnaire also included items to examine other factors that may influence psychologists’ treatment recommendations, such as the psychologists’ beliefs and attitudes, training and experience, exposure to DTCA, and current practice and demographics.

Findings. Overall, the respondents were significantly more likely to recommend a combination of psychotherapy and ADM than any other recommendation; 65% of psychologists responded that they would recommend ADM and therapy, 22% stated that they would recommend therapy alone, 4% responded that they would recommend ADM alone, and close to 9% of our respondents chose “other” as their category of choice. However, psychologists’ recommendations did not vary by patient request scenario type, $X^2 = (9, N = 180) = 14.32, p = .11$. One way ANOVAs on participants’ ratings of the likelihood of making various treatment recommendations also did not vary by scenario type. Discriminant function analyses revealed that psychologists’ clinical practice variables produced a significant function; Wilks’ Lambda =
.81, \( p = .02 \), with the amount of referrals for ADM and financial consideration being the largest significant contributors for psychologists’ treatment recommendations. Discriminant function analyses also revealed that psychologists’ beliefs and attitudes produced a significant function; Wilks’ Lambda = .78, \( p = .004 \), with the largest contributor being the respondent’s “belief that antidepressant medications are prescribed too often.” No significant functions were found for psychologists’ training and experience variables, DTCA-related factors, or current practice and demographics.

Implications. At least in this group of participants, psychologists were most likely to recommend a combination of therapy and ADM (65% of the time) for treatment of a depressive disorder; this recommendation is in keeping with a prevailing view that combined treatment is the most effective means of treating depression. Not surprising, a total of 96% of respondents included psychotherapy as part of their recommendation (either alone, or in combination with other treatment). Whereas only 4% of the current sample recommended ADM alone, in the Kravitz study only 40% of the PCPs recommended a consultation with a mental health professional. Future research can perhaps more closely replicate the Kravitz study through using SPs as the client, thus giving a more real-life scenario.