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Enhancing Placebo Effects: Insights From Social Psychology

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Abstract

Placebo effects are widely recognized as having a potent impact upon treatment outcomes in both medical and psychological interventions, including hypnosis. In research utilizing randomized clinical trials, there is usually an effort to minimize or control placebo effects. However, in clinical practice there may be significant benefits in enhancing placebo effects. Prior research from the field of social psychology has identified three factors that may enhance placebo effects, namely: priming, client perceptions, and the theory of planned behavior. These factors are reviewed and illustrated via a case example. The consideration of social-psychological factors to enhance positive expectancies and beliefs has implications for clinical practice as well as future research into hypnotic interventions.

Keywords

Placebo; Hypnosis

Placebo effects are well established and pervasive in medical and psychological interventions. Medical devices (Hashish, Salmon, Freeman, & Harvey, 1988), sham surgery (Moseley, O'Malley, Peterson, et al., 2002), sham acupuncture (Kaptchuk, Stason, Davis, et al., 2006), and sham medications, such as inert pills for depression (Kirsch, et al., 2008; Leuchter, Cook, Witte, Morgan, & Abrams, 2002) have all been shown to have a therapeutic effect. Placebo effects are dependent upon the perceptions and expectations that exist within the individual receiving treatment, and can be enhanced such that placebo effects may be bigger or smaller depending on factors that influence cognitive expectancies (Montgomery & Kirsch, 1997). It comes as no surprise that placebo effects have been associated with both hypnosis (Kirsch, 1985) and psychotherapy in general (Patterson, 1985).

Kirsch (1994) has suggested that hypnosis may be thought of as a nondeceptive form of placebo. Kirsch characterizes hypnosis as a nondeceptive placebo, because, like placebo pills, it may change client expectancies without introducing an active substance into the body. Kirsch (1985) suggested that the magnitude of the placebo effect could be altered through the creation and manipulation of positive response expectancies. Response expectancies are defined as expectations of involuntary responses brought about by a certain behavior or stimulus. These responses are conceptualized as a basic psychological mechanism, reliant on the mind-body connection. These claims are supported by an important study conducted by Council and Kirsch (1984; cited from Kirsch 1985). Findings from this study indicated that manipulating expectancies can account for roughly 46% of the variance in hypnotic response. Meanwhile, test-retest correlations appear to account for only 10% of the variance.

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Placebo effects can be large and have a potent impact on the effectiveness of medical and psychological interventions. For example, two meta-analyses conducted by Kirsch and colleagues indicated that placebo pills are around 75% to 80% as effective as antidepressant medications for treating depression (Kirsch & Sapirstein, 1998; Kirsch et al., 2008), and that the standardized difference between these modalities on the Hamilton Depression Rating Scale, which consist of less than two points, is not of clinical significance (Kirsch et al., 2008). Furthermore, Kirsch argues that the remaining 20-25% of the difference in drug response between placebo and antidepressant medications is likely accounted for by the increased number of side effects experienced by those taking antidepressants (Kirsch & Sapirstein, 1998; Kirsch, 2005).

In randomized clinical trials of medications there is an attempt to control or minimize placebo effects. However, in clinical practice there may be significant benefits for *enhancing* the placebo effect. Patterson (1985) suggested that virtually all psychotherapeutic techniques rely at least in part on their ability to produce positive outcomes through non-specific activities or placebo effects. Patterson (1985) identified that variables such as the perceived attractiveness and expertise, in addition to perceived warmth of the therapist have a significant impact on patient outcomes. Krasner and Ullmann (1965) have argued that if treatment outcomes are improved due to placebo effects, then it is in the client's best interest if his or her therapist attempts to maximize these effects.

Kirsch (1985) has highlighted three key expectancies that he suggests are essential to maximizing the placebo effect during clinical hypnosis. First, clients must feel that their surroundings are appropriate for complying with hypnotic suggestion. Second, clients must also believe that their responses to hypnotic suggestion are appropriate in their role as a patient. Finally, clients must be of the opinion that they are hypnotizable. Enhancing positive expectancies can help clinicians provide the most effective treatment for their clients.

There is currently no consensus on how to most effectively maximize positive expectancies. However, current research from the field of social psychology may provide some insights and guidance. In an early paper, Goldstein (1966) suggested that clinicians should place greater emphasis on incorporating findings from the domain of social psychology. It is possible that a renewal of Goldstein's (1966) and Patterson's (1985) initial efforts to incorporate knowledge from the field of social psychology into clinical practice may uncover new ways to enhance client expectations. Specifically, we discuss social psychology research in three areas that provide potential methods for enhancing placebo effects. These three areas are (1) *priming*, (2) *client perceptions*, and (3) *the theory of planned behavior*, which can bridge the gap between expectancies, perceptions, attitudes, motivation, and subsequent behavior. These areas are then illustrated in a case example.

Priming

In the realm of social psychology, priming can be thought of as an implicit memory effect, whereby recent exposure to a given stimulus makes the content of that stimulus more cognitively available, thus impacting subsequent behavior (Domke, 2001). Priming effects are well supported in studies of social influence. For example, Bargh, Chen, and Burrows (1996) conducted a series of experiments in which participant behavior was influenced by the priming of various adjectives during a sentence completion test. During the initial experiment, participants were asked to complete a sentence completion task that contained adjectives referring to polite, neutral, or rude behavior. Participants were then recorded to see how long they would wait for an experimenter to finish a conversation with a confederate before interrupting. Results indicated that participants who had been primed

with polite words interrupted the conversation less often than participants who were primed with neutral or rude words. Furthermore, participants who had been primed with rude words interrupted the conversation more quickly than participants in the other two conditions (Bargh et al., 1996).

In a subsequent experiment (Bargh et al., 1996), participants were asked to complete a sentence completion task with either neutral words or words stereotypically associated with the elderly (e.g. Florida, gray, ancient). Results revealed that participants who were primed with elderly words took significantly longer to walk down a corridor than did participants in the neutral condition. These experiments support the notion that priming can be used to influence human behavior on an individual and social level.

Other studies have shown that various stimuli in the environment can queue priming effects as well. For example, in a study conducted by Papies and Hamstra (2010), 156 customers entering a butcher shop were offered a free snack at the checkout counter. Approximately half of the participants were primed to display sound dieting behavior through an advertisement hung just outside the store entrance. The advertisement indicated that the store was offering a free low calorie recipe to interested customers. The other half of the customers received no priming and acted as control participants.

The results of this study revealed that the priming manipulation was able to influence the behavior of calorie conscious individuals. In the control condition, participants who were dieting were more likely to accept the free sample than were participants who were not dieting (Papies & Hamstra, 2010). The authors suggest that this is likely due to the increasing value placed on snacks during dieting. More important, however, was the finding that when participants were primed with the low calorie advertisement, individuals who were on a diet became less likely to accept a free sample than non-dieting participants. This study indicates that priming may be most effective when participants are motivated to align their behavior with the priming principle, which may be the case for individuals seeking treatment in a clinical setting.

Additional research suggests that priming need not occur on an indirect or subconscious level to be effective. A study conducted by Webb, Hendricks, and Brandon (2007) has shown that positive expectancies can be elicited simply by telling clients that a treatment will be effective. During this study, participants were presented with packets that either contained standard information on smoking cessation or gave the appearance of being individually tailored to the participant by including information such as the patient's name, age, and preferred brand of cigarette. Roughly half the participants in each condition also received a preintervention priming letter in which they were informed of the benefits of either standard or tailored information booklets. The priming letter received was matched to participant condition.

Results revealed that participants who received a priming letter reported that the content of their information packets was of a higher quality than those who did not receive letters. This occurred regardless of whether or not the packets were standardized or individually tailored (Webb et al., 2007). Participants who were primed prior to receiving the information packet were also more likely to indicate that they were ready to quit smoking after receiving the information packet, and were more likely to recall information given in the packets. These results suggest that priming does increase positive expectancies and that these expectancies influence subsequent behavior.

One study that displays how priming can be used to maximize expectancies of hypnosis effectiveness was conducted by Kendrick, Koep, Johnson, Fisher, & Elkins (In Press). During this study, 75 undergraduate participants were divided into three groups of 25:

hypnosis, sham hypnosis (white noise presented in the context of hypnosis), or control (white noise in the absence of hypnotic context). In order to determine whether or not positive cognitive expectancies could be primed through environmental cues, participants in the first two conditions were placed in a setting congruent with an idealistic hypnotic session. Participants were placed in a dimly lit room with comfortable seating. Books on hypnosis, as well as the framed credentials in hypnosis of the primary researcher, were clearly visible.

Results indicated that 92% of the participants in the sham hypnosis condition found the intervention beneficial compared to 100% of the participants in the hypnosis group and 16% in the white noise control group. Likert scale ratings of perceived benefit also indicated no significant difference between treatment ratings for participants in the hypnosis and sham conditions. However, significant differences were found between hypnosis group participants and white noise control participants, and between sham hypnosis participants and control group participants. These differences were significant at the $p < .001$ level. Significant differences were also reported on Likert scale ratings of therapist professionalism, with participants in the hypnosis and sham conditions reporting significantly higher ratings than participants in the white noise condition. Additionally, consistent with our argument that features within the treatment room primed positive expectancies, 100% of the participants in the hypnosis and sham hypnosis conditions indicated that the environment was appropriate for conducting a hypnosis session.

These results suggest that priming may be effective at increasing positive expectancies prior to a hypnotic session. Adapting the therapeutic environment, with various hypnosis-related cues, may have a significant effect on maximizing placebo effects. It is noteworthy that while not using the term “priming,” Kirsch (1985) has also cited studies that have relied on manipulating the environment (e.g. Wilson, 1967) or providing information on expected responses (e.g. Gregory & Diamond, 1973; Vickery & Kirsch, 1985), and the power of these techniques to increase expectancies. There is a sizeable amount of research on priming available in the social psychology literature. It may be the case that promoting interest in the role that priming plays in enhancing positive expectancies may lead to more effective hypnotic interventions.

Client Perceptions

Clinicians may also be able to increase positive expectancies by changing the way in which they are perceived by their clients. Hodge (1976) has argued that initial client perceptions of the therapist are very important during hypnosis, due to the unique nature of the therapeutic relationship. Hodge (1976) suggests that clients are likely to have preconceived notions, or expectancies, about the nature of clinical hypnosis, as well as the respective roles and responsibilities of client and therapist. If both parties are in agreement on these factors, then a series of both implicit and explicit contracts will be formed. These contracts are believed to increase the likelihood that patients will be able to focus their attention appropriately during hypnosis, which is hypothesized to impact the client's ability to respond to hypnotic suggestion. Therefore, client perceptions of the therapist may have important implications regarding two of Kirsch's (1985) key expectancies; the patient must believe that responding to hypnotic suggestion is appropriate, and he or she must believe that they are hypnotizable.

Research also suggests that the extent to which the client perceives the therapist as likeable and views him or her as an expert is highly important (Evans-Jones, Peters, & Barker, 2009). Recent research by Small, Taft, and Brown (2011) appears to support this assumption. Survey data indicated that when at-risk mothers were offered a social support intervention, the support was only considered beneficial if participants believed that the individual

providing support was able to understand their situation and withhold judgment. An additional study conducted by Robinson and Serfaty (2008) suggests that displaying warmth and empathy may actually be the key factors influencing patient outcome, regardless of the physical attractiveness of the person giving care. In this study, patients diagnosed with an eating disorder were offered social support through emails at least twice weekly over a three month period. Results indicated that although patients never met face to face with their therapists, they were still significantly less likely than control group patients to retain an eating disorder diagnosis following treatment.

Lynn et al. (1991) have produced evidence suggesting that client perceptions of the therapists may be particularly important for individuals who initially score low on hypnotic susceptibility scales. During this study, 12 highly hypnotizable participants and 10 participants scoring low in initial hypnotizability were randomized to a condition where they received instructions designed to maximize interpersonal rapport with their hypnotherapist. Meanwhile, 12 highly hypnotizable participants and 11 low hypnotizable participants were randomized to a condition where they received instructions designed to minimize rapport. Participants in the high interpersonal instruction condition were informed by the hypnotherapist that hypnosis was his or her area of expertise and that they found the research very interesting. An emphasis was placed on eye contact and disclosure on the part of both hypnotist and participant. Furthermore, the hypnotherapist informed the participant that cooperation was vital to success. Meanwhile, participants in the low interpersonal condition received minimal eye contact and were asked to disclose information without receiving a subsequent disclosure on the part of the hypnotherapist.

Results revealed that differences in the interpersonal context had no effect on highly hypnotizable participants (Lynn, 1991). However, low hypnotizable participants who were assigned to the high interpersonal condition received scores on the Stanford Hypnotic Susceptibility Scale Form C (SHSS:C; Weitzenhoffer & Hilgard, 1962) that nearly doubled those received by low hypnotizable participants who were assigned to the condition designed to minimize interpersonal rapport. Low hypnotizable participants also reported a stronger emotional bond with the hypnotherapist when they received instructions designed to maximize rapport.

While the benefits of clinical hypnosis may not be completely explained by placebo, it is reasonable that enhancing placebo effects can contribute to improved treatment outcomes. In fact, if individuals ranking low in hypnotic susceptibility are unable to benefit from certain aspects of clinical hypnosis, then it may be particularly important to deliver the intervention in a manner that meets the interpersonal needs of such clients and enhances their perceptions of the therapist. For example, results from a study conducted by Wickramasekera and Szlyk (2003), found that individuals ranking higher in empathy respond more favorably to hypnotic suggestions..

Taken together, this research highlights the importance of client beliefs and perceptions of the therapist. The importance of warmth and empathy are well established. In addition, the studies reviewed in this section identify that a client's perceptions of the hypnotic induction, belief about their hypnotizability, and perception of the therapist as likeable and expert can have a significant effect on outcomes and should be considered in treatment.

The Theory of Planned Behavior

Kirsch (1985) suggested that an important way in which positive expectancies could be maximized during hypnosis is through the enhancement of the client's own belief that he or she is hypnotizable. In other words, therapists may be able to maximize the placebo effect by changing a client's attitude about his or her own hypnotizability. One of the most

influential theories in social psychology that has attempted to bridge the gap between attitude, motivation, and subsequent behavior is Ajzen's (1991) Theory of Planned Behavior (TPB). According to Ajzen (1991), when one is given adequate time to consider whether or not to engage in a behavior, his or her decision will be based on a combination of behavioral, normative, and control beliefs. Behavioral beliefs include expectancies that an individual holds on the outcome of a given behavior, and can be expressed in an "if ... then" relationship (Ajzen, 1991). These beliefs can be associated with both positive and negative outcomes and cumulatively determine an individual's attitude about performing a given behavior.

Normative beliefs include an individual's perception of what others think about performing a behavior. These beliefs lead to subjective norms (Ajzen, 1991), which can further be divided into injunctive and descriptive norms (Borsari & Carey, 2003). Injunctive norms are individual perceptions of what others deem socially appropriate or moral, whereas descriptive norms include perceptions of what activities people regularly engage in. Previous studies have shown that whether or not our behavior is based on descriptive or injunctive norms is largely influenced by norm salience (Steadman, Rutter, & Field, 2002). For example, a study conducted by Reno, Cialdini, and Kallgren (1993) indicated that people are less likely to litter after witnessing a confederate picking up trash off the floor.

Finally, control beliefs are expectancies of what factors may either facilitate or impede performance on a given task. Together, these factors determine one's perceived behavioral control, or the extent to which an individual believes he or she will be able to perform a given behavior (Ajzen, 1991). Personal beliefs, subjective norms, and perceived behavioral control is ultimately performed is further mediated by one's actual behavioral control. For example, although an individual may believe that he or she possesses the means and willpower necessary to start a new exercise program, they may soon realize that they have not allotted enough time into their schedule to drive to the gym, nor do they have the necessary funds to purchase home equipment.

Previous studies have shown that TPB can be used to explain a significant proportion of the variance in occurrence of several health behaviors, including alcohol and tobacco use (McMillian & Conner, 2003), illicit substance abuse (Elek, Miller-Day, & Hecht, 2006), physical exercise (Rhodes & Courneya, 2003), and safe sex practices (White, Terry, & Hogg, 1994). Furthermore, a meta-analysis conducted by Armitage and Conner (2001) suggested that roughly 39% of the variance in one's intention to perform a given behavior is accounted for by personal beliefs, subjective norms, and perceived behavioral control.

Research has indicated that personal beliefs, subjective norms, and perceived behavioral control may influence a depressed individual's decision to seek treatment. A study conducted by Schomerus, Matschinger, and Angermeyer (2009) reported that TPB explained 61% of the variance in willingness to seek psychiatric help for depression in a sample of 136 depressed German adults. Personal beliefs accounted for a larger percentage of the variance than did normative beliefs or perceived behavioral control. This pattern has been observed in other studies as well (Elek, Miller-Day, & Hecht, 2006). In an additional study, the relationship between depression severity and intention to comply with a medication regime in a sample of 162 breast cancer patients was mediated by personal beliefs and perceived behavioral control (Manning & Bettencourt, 2011). Finally, Sun et al. (2011) reported that 16.4% of the variance in antidepressant use in a sample of 201 older adults diagnosed with major depression was accounted for by attitudes towards antidepressants.

While these studies do not necessarily obviate a direct link between personal beliefs, social norms, perceived behavioral control, and the magnitude of the placebo effect, they do indicate that these factors may account for a significant proportion of the variance in depressed clients' decisions to seek out and comply with treatment. Therefore, taking stock of a client's preconceived notions on the effectiveness of hypnosis, as well as the opinions of highly valued others, may help clinicians identify possible barriers and false information that will need to be corrected before patients can receive the maximum benefits from hypnosis. Furthermore, understanding how these concepts are involved in maintaining other behaviors that might hinder the effectiveness of hypnosis may also allow clinicians to better serve their patients.

If clients enter therapy with either negative or ambiguous expectancies towards the therapeutic utility of hypnosis, then personal, social, and control beliefs can be modified. For example, educating clients on treatment effectiveness has been shown to significantly correlate with positive expectancies towards treatment, as well as with increased treatment adherence (Sun et al., 2011). Furthermore, Schomerus et al. (2009) have suggested that background factors such as education, stereotypes, culture, and even age and gender affect behavioral, normative, and control beliefs. Therefore, obtaining a thorough history and demographic background on clients may help clinicians become aware of any taboos clients have about receiving a hypnotic induction. This knowledge may allow clinicians to better address ethnic, cultural, and other factors as well as clear up any misconceptions, which may help clients feel more comfortable with the prospect of participating in hypnotherapy.

Case Example

Thus far, an overview of how priming, client perceptions, and TPB factors can influence the expectancies of clients being treated with hypnotherapy has been offered. Potential pitfalls have been highlighted, and suggestions for changing negative expectancies have been offered. The following case vignette is provided to illustrate how these principles can be used to enhance expectancies in an ideal situation.

Ben is a 34 year-old postal worker who had been feeling depressed after a recent divorce. When Ben first noticed that his depression was interfering with his ability to perform everyday tasks, he scheduled a visit with his physician who referred him to Dr. Smith for hypnotherapy. Dr. Smith was highly recommended and her credentials were described as outstanding.

Ben ultimately decided to attend hypnotherapy sessions with Dr. Smith after viewing Dr. Smith's website, which included a list of credentials and publications. During Ben's initial visit to Dr. Smith's office, he was greeted warmly by a secretary and asked to have a seat in a lounge area. The lounge area contained two comfortable sofas, a coffee table, and a book shelf with various books and articles on hypnosis and psychotherapy. Information packets had also been placed on the coffee table. The content of these packets included positive information on hypnotherapy, a section addressing common misconceptions about hypnosis, and examples of effective applications. Various framed awards and certifications received by Dr. Smith were displayed on the walls.

After Ben had been waiting a few minutes, he was greeted and asked to follow Dr. Smith to her office. One of the first things he noticed upon entering Dr. Smith's office is that it was decorated in a similar manner as the lounge area. Ben was seated in a comfortable chair and scanned the framed credentials and college diplomas displayed, along with the various hypnosis journals that had been placed on a bookshelf.

Ben was surprised that, instead of talking to him from behind her desk, Dr. Smith pulled up a chair across from Ben. After both parties were seated, Dr. Smith thanked Ben for coming and asked if he would like to elaborate more on what had been troubling him lately. Ben informed Dr. Smith that he had recently been feeling anxious and sad since his divorce, and that his sleep had suffered. Dr. Smith expressed that she understood how divorce can be a difficult situation and expressed concern. Dr. Smith also discussed with Ben his goals of decreasing stress, sleeping better, and decreasing depression. Dr. Smith provided Ben with information on hypnotherapy and assurances that she felt confident that it could help him achieve these goals. She then asked Ben if he had any additional questions about hypnotherapy. Ben indicated that he did not have much experience with hypnosis and was not quite sure what to expect. However, he had been attending yoga sessions for several months and that had been a positive experience. Areas of possible similarity between the level of relaxation he had experienced in his yoga practice and hypnotic induction was discussed. Thus, Ben felt more open to hypnotherapy.

Dr. Smith then shared some additional information on clinical hypnosis with Ben. She informed him that hypnotherapy typically involves a hypnotic induction followed by suggestions, and that it is very different from representations of hypnosis seen on television. After ensuring that Ben had no further questions, Dr. Smith conducted a hypnotic induction followed by appropriate suggestions for reducing stress, improving sleep, and coping with sadness. Following the session, Dr. Smith and Ben discussed Ben's experience and any further questions and concerns were addressed. Dr. Smith then asked Ben if he would like to schedule another appointment at the same time for the next few weeks or had another preference for times, and an appointment was then created that was sufficiently convenient for Ben.

This case example illustrates that both the waiting area and Dr. Smith's office were decorated in such a way as to prime positive expectancies for treatment outcome and therapist expertise. Furthermore, Dr. Smith's website had been designed to prime positive expectancies through the inclusion of appropriate information. Dr. Smith was also careful to ensure that her actions displayed both warmth and empathy.

Finally, the role that personal beliefs, social norms, and perceived behavior control play are illustrated in this case example. Ben's referring physician suggested that he attend hypnotherapy and provided positive information about Dr. Smith, thus providing a strong social norm. Ben's own experience with yoga influenced him to be more receptive to alternate treatment options, thus producing a favorable personal belief. Finally, Dr. Smith took steps to assess Ben's perceived behavioral control by asking if there were any circumstances that would prevent him from attending additional therapy sessions during the same time each week.

Conclusion

In congruence with Patterson's (1985) and Goldstein's (1966) suggestion that clinicians would benefit from incorporating findings from the field of social psychology into their practice, we have identified several variables including: priming, factors influencing client perceptions, and the theory of planned behavior. These factors may help clinicians maximize expectancies and enhance placebo effects to the benefit of clients. The consideration of social-psychological factors to enhance positive expectancies and beliefs has implications for clinical practice as well as future research into hypnotic interventions.

Although in the present article we have identified research that supports the importance of enhancing the placebo effect in hypnotherapy (Kirsch, 1994), it also should be noted that

that the benefits of clinical hypnosis may not be completely explained by cognitive expectancies alone. For example McGlashan, Evans, and Orne (1969) as well as Spanos, Perlini, and Robertson (1989) have suggested that hypnotic abilities also serve as mediators of the effectiveness of hypnosis for individuals experiencing pain. Results from their studies have indicated that while low hypnotizables experience similar improvements in pain tolerance regardless of whether they receive a placebo pain reliever or a hypnosis intervention, high hypnotizables are able to tolerate pain for longer durations while under hypnosis than when given a placebo analgesic.

While it is likely that multiple factors may be involved in response to hypnotic interventions in the clinical context, it is also clear that social psychological factors have the ability to alter expectancies. These factors play an important role in response to hypnosis in both clinical and experimental settings. Further, existing research indicates these will be especially fruitful areas for further investigation and integration into clinical practice.

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