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When Do People Believe That Alcohol Treatment Is Effective? The Importance of Perceived Client and Therapist Motivation

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Respondents read a narrative depicting a drunk-driving offender seeking help for alcohol problems and were randomly assigned to receive 1 of 3 types of client motivation (autonomous motivation, compulsory treatment, or impression management) and 1 of 2 types of therapist motivation (autonomous vs. controlled motivation). Maximal treatment efficacy was expected when both client and therapist were autonomously motivated. Minimal treatment efficacy was expected when the client entered treatment only to manage impressions and when the therapist exhibited controlled motivation. Compulsory treatment undermined beliefs about client interest in treatment. Finally, autonomously motivated therapists were expected to be able to reverse expected negative outcomes for compulsory treatment and impression management clients. It was found that expectations about the efficacy of alcohol treatment were affected by the perceived motivation of clients and therapists.

Beliefs about the efficacy of alcohol treatment can influence support for publicly funded treatment programs, can shape interactions between therapists and clients, and can affect legal decisions about the appropriateness of treatment (rather than criminal sanctions) for offenders with drinking problems. What, then, does the literature reveal about the determinants of people's beliefs about the course and outcome of treatment for alcohol problems? One line of research emphasizes people's assumptions about the etiology of alcohol abuse (cf. Furnham, 1988). For example, assuming that problem drinking reflects a disease rather than a learned behavior modifies beliefs about processes that facilitate therapeutic change (Morgenstern & McCrady, 1992). Other studies show that labeling a person as an "alcholic" as opposed to a "social drinker" modifies beliefs about treatment outcome and determines whether that individual is stigmatized (Cash, Briddell, Gillen, & MacKinnon, 1984; Kilty, 1981; Rodin, 1981; Rule & Phillips, 1973; Stafford & Petway, 1977).

To date, we know of no research that has examined the impact of *perceived motivation* on beliefs about alcohol treatment efficacy. This is unfortunate, given professional and public interest in mandatory treatment for substance abuse (Gostin, 1991; Wild, Newton-Taylor, &

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Ogborne, 1997), including compulsory alcohol treatment for drinking-and-driving offenders (Wells-Parker, 1995). These developments, along with broad acceptance of the idea that alcohol abusers are poorly motivated for treatment (Nir & Cutler, 1978), research emphasizing the pivotal role of client motivation in determining readiness for behavior change (Curry, Wagner, & Grothaus, 1990; Miller & Rollnick, 1991; Prochaska & DiClemente, 1983), and widespread interest in techniques such as intervention to pressure individuals to enter alcohol treatment (Johnson, 1986), have suggested that a systematic examination of perceived motivation as a determinant of beliefs about alcohol treatment efficacy would be useful.

Social Perception and Expectancy Formation: Theory and Hypotheses

In this study, we used self-determination theory (Deci & Ryan, 1985; Ryan, Plant, & O'Malley, 1995) to derive predictions about the effects of perceived client and therapist motivation on beliefs about alcohol treatment efficacy. This approach defines motivation relative to why people engage in activities, rather than the amount of energy that they expend, or their sense of self-efficacy. *Controlled motivation* involves behavior that is initiated and regulated by external contingencies (e.g., rewards, other social controls) or by intrapsychic pressures (e.g., feelings of guilt or obligation). *Autonomous motivation,* by contrast, involves behavior that is initiated and regulated on the basis of personal choice. In attributional terms, controlled behaviors are associated with what Heider (1958) and deCharms (1968) called an *external perceived locus of causality* (i.e., actions are undertaken in response to coercive pressures by interpersonal or intrapsychic forces). Conversely, autonomous behaviors are associated with an internal perceived locus of causality (i.e., actions are undertaken because they emanate from choices made by oneself). Research using this framework has demonstrated that, compared with controlled motivation, autonomous motivation is associated with more positive psychological outcomes, such as intrinsic interest, exploration, cognitive flexibility, and experiental involvement (for reviews, see Deci & Ryan, 1985, 1987; Koestner & Losier, 1996; Wild, Kuiken, & Schopflocher, 1995). Similarly, autonomous reasons for adopting health-protective behaviors (e.g., pursuing a weight-loss program) are associated with greater long-term benefits compared with controlled reasons for changing behavior (Williams, Grow, Freedman, Ryan, & Deci, 1996).

A variety of studies have shown that controlled motivation toward activities can be induced by associating activities with controlling social events, including task-contingent rewards (Deci, 1971; Lepper, Greene, & Nisbett, 1973), surveillance (Lepper & Greene, 1975), deadlines (Amabile, DeJong, & Lepper, 1976), and imposed performance evaluation (Amabile, 1979; Harackiewicz, Manderlink, & Sansone, 1984). Conversely, autonomous motivation is promoted when people are given opportunities to make choices (Zuckerman, Porac, Lathin, Smith, & Deci, 1978), and when social contexts minimize external constraints, provides a meaningful rationale for performing tasks and acknowledgment of feelings (Deci, Eghrari, Patrick, & Leone, 1994).

The direct application of social controls on people is sufficient, but not necessary, to induce controlled motivation. In fact, merely perceiving that another person has adopted a controlled motivational orientation toward an activity can induce the same deleterious effects on task interest and involvement. For example, Wild, Enzle, and Hawkins (1992) reported that participants who perceived a teacher as a paid employee were less interested and engaged in learning than participants who perceived the teacher as a volunteer. Wild, Enzle, Nix, and Deci (1997) replicated this effect and formulated a social perception model to account for these results, wherein cues about an interpersonal target's motivation (whether autonomous or controlled) cause participants to self-generate expectations about quality of task engagement and quality of interpersonal relations. In turn, these expectations affect their actual motivation when they engage in activities.

The social perception model of Wild, Enzle, et al. (1997) is applicable to a wide variety of activities, including parenting, education, and counseling, and implies that perceived motivation is a pervasive influence on people's expectations about task engagement. In this study, we examined whether perceived motiva-

tion might similarly affect participants' expectancies about the efficacy of treatment for alcohol problems. In this context, clients often enter treatment under various forms of formal and informal social pressure to change their alcohol use (Weisner, 1990; Wild, Newton-Taylor, & Alletto, 1998). Similarly, therapists themselves can be more or less constrained by external events and reward structures to engage in counseling activities. We hypothesized that participants would believe that alcohol treatment is most effective when both clients and therapists are perceived as being autonomously motivated to engage in treatment activities. Second, we hypothesized that they would believe that alcohol treatment is least effective when clients and therapists are both perceived as exhibiting controlled motivation to engage in activities.

The possibility that different types of controlled motivation for entering alcohol treatment would exhibit differential effects on beliefs about treatment efficacy also was examined. Specifically, two types of controlled motives for help seeking were evaluated: compulsory treatment ordered by a judge and obtaining treatment to make a favorable impression on the court. These conditions correspond roughly to actual circumstances that may accompany drunken driving offenders seeking treatment for alcohol problems. We hypothesized that participants would believe that autonomously motivated therapists can reverse the negative effects on expectations about treatment process and outcome that accrue to clients entering treatment under court orders or because of impression management concerns. This prediction follows from the findings of Wild, Enzle, Nix, and Deci (1997) that expectancy formation is malleable depending on differential construals of an interpersonal target's motivation.

Method

Participants

The participants were 116 visitors to an Ontario Science Centre who volunteered for a study on "attitudes toward addiction treatment." The sample included 39 men, 75 women, and 2 individuals who provided no gender information. Fifty-seven participants were 30 years of age or younger, and 59 participants were 31 years of age or older. Most (65%) of the sample had attended university or college. Although 95 (82%) participants reported that they had consumed alcohol in the previous year, only 7 (6%) of them had ever sought help for an alcohol problem.

Materials and Design

Participants were randomly assigned to read one of six versions of a short story in which a heavy drinker (Chris) was arrested by the police for drunken driving. Chris's current drinking pattern was described, along with events leading up to his arrest, an account of the pretrial hearing, Chris making a call to an alcohol treatment facility, and a description of an initial interaction with an alcohol counselor. Beyond these standardized story elements, six versions of the vignette were written, corresponding to a 3×2 between-subjects experimental design.

Three types of client motivation for engaging in alcohol treatment were protrayed. In the autonomous motivation condition, the vignette stated the following: "At the pretrial hearing, Chris thought that no matter what happened, he was interested in getting help for his drinking—it was something he wanted to do for himself." In the controlled motivation (compulsory treatment) condition, the story stated the following: "At the pretrial hearing, Chris was ordered by the judge to get some help for his drinking. Chris thought that no matter what happened, he had to follow through with what the judge ordered him to do." Finally, in the controlled motivation (impression management) condition, the story stated the following: "At the pretrial hearing, Chris thought that no matter what happened, he had to try and make a good impression on the judge in order to get a reduced sentence." Two levels of therapist motivation were portrayed: autonomous motivation (i.e., the therapist was a volunteer) and controlled motivation (i.e., the therapist was motivated by money; cf. Wild et al., 1992; Wild, Enzle, et al., 1997).[1]

[1] Copies of the experimental stimulus materials are available on request. Across therapists demonstrating autonomous motivation, the cell sizes in this study were 18, 18, and 20 for autonomous, impression

After reading the story, participants answered a series of 4 items designed to check on the efficacy of the experimental manipulations and 18 exploratory items assessing beliefs about the (a) client's interest in treatment and the extent to which behavior changes would occur as a function of treatment (9 items) and (b) degree to which the therapist was interested in counseling people with alcohol problems and the efficacy of the therapist in helping the client to change his behavior (9 items).

Results

Manipulation Checks

Two items were written to assess the efficacy of the client motivation manipulation: "Chris is going to treatment because he really wants to" and "Chris is going to treatment because he feels pressure to." Each item was rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A 3 × 2 analysis of variance (ANOVA) was performed on each variable, and the results show the predicted main effect of client motivation, $Fs(2, 107) = 33.84$ and 6.59, $ps < .002$, respectively. For the first question ("Chris is going to treatment because he really wants to"), participants in the autonomous motivation condition endorsed the item to a greater extent ($M = 5.28$) than did those receiving either the compulsory treatment or impression management versions of the scenario ($Ms = 2.98$ and 2.08, respectively). For the second question ("Chris is going to treatment because he feels pressure to"), participants in the compulsory treatment condition endorsed the item more ($M = 5.29$) than did those in the impression management ($M = 4.94$) and intrinsic motivation ($M = 3.78$) conditions.

ANOVAs were also performed on two items assessing efficacy of the therapist motivation manipulation ("The therapist is counseling Chris because of the money she earns" and "The therapist is counseling Chris because she is genuinely interested in helping"). Results show a main effect of therapist motivation on both measures, $Fs(1, 107) = 143.04$ and 52.95, respectively, $ps < .0001$. For the first item, paid therapists were viewed as "counseling because of the money" to a greater extent ($M = 4.98$) than volunteer therapists ($M = 1.46$). For the second item, volunteer therapists were judged to be "counseling . . . because [he or] she is genuinely interested in helping" to a greater extent ($M = 5.93$) than paid therapists ($M = 3.63$).

Construction of Dependent Measures

Principal-components analysis (unities placed in the diagonals), followed by the scree test (Cattell, 1966), revealed two factors underlying the nine client treatment process and outcome items, accounting for 66.3% of the total variance. Two criteria were used to determine inclusion of items on composite scales: factor loadings of .5 or higher and no cross-loadings on other factors.

Table 1 shows the varimax-rotated factor loadings for the nine client process and outcome items. The first factor was named *Client Interest in Treatment* (e.g., "Chris probably thinks that treatment is a waste of time" [negatively scored]; three items, Cronbach's $\alpha = .83$), whereas the second factor was named *Positive Behavior Change* (e.g., "Chris will definitely learn to control his drinking behavior"; four items, $\alpha = .78$).

A second principal-components analysis was performed on the nine therapist process and outcome items and revealed two factors accounting for 64.6% of the total variance. Table 2 shows varimax-rotated item loadings for the therapist item set. The first factor was named *Therapist Interest* (e.g., "The counselor is interested in helping Chris"; four items, $\alpha = .84$), and the second factor was named *Therapist Efficacy* (e.g., "The counselor will be very effective in helping Chris with his drinking problem"; three items, $\alpha = .65$).

Main Effects of Perceived Client Motivation

A series of 3 (client motivation) × 2 (therapist motivation) ANOVAs was performed

management, and compulsory treatment clients, respectively. Across therapists demonstrating controlled motivation, the cell sizes were 18, 18, and 21 for autonomous, impression management, and compulsory treatment clients, respectively. Three participants had missing data on the dependent measures and were excluded from the analyses.

Table 1
Factor Loadings for Client Process and Outcome Items

Item	Factor 1	Factor 2
Chris probably thinks that treatment is a waste of time. (reversed)	.85	
Chris probably believes that being in treatment will be a valuable experience.	.81	
Chris is interested in alcohol treatment.	.79	
Chris will find treatment to be a valuable experience.		.83
Chris will definitely learn to control his drinking behavior.		.78
Chris will learn to change his drinking habits during treatment.		.67
Chris will drop out of treatment before it's over. (reversed)		.60

on the composite dependent measures.[2] Perceived client motivation affected beliefs about interest in treatment, $F(2, 100) = 39.3$, $p < .0001$, such that the greatest interest in treatment was expected for an autonomously motivated client ($M = 14.7$), followed by a compulsory treatment client ($M = 10.8$) and an impression management client ($M = 7.2$). Protected t tests among the pairs of means indicated that each condition was reliably different from each other ($ps < .001$). Perceived client motivation also affected beliefs about positive behavior change, $F(2, 100) = 12.3$, $p < .001$. Greater behavior change was expected for an autonomously motivated client ($M = 16.4$), followed by a compulsory treatment client ($M = 15.6$) and an impression management client ($M = 11.6$). The autonomous motivation and compulsory treatment conditions did not differ reliably from each other; however, the autonomous motivation and compulsory treatment conditions were each significantly greater than the impression management condition ($ps < .001$). Finally, perceived client motivation affected beliefs about therapist efficacy, $F(2, 100) = 9.2$, $p < .001$, such that the therapist was expected to be most effective when interacting with an autonomously motivated client ($M = 12.7$), followed by a compulsory treatment client ($M = 11.4$) and an impression management client ($M = 9.2$).

Main Effects of Perceived Therapist Motivation

An ANOVA identified a main effect of perceived therapist motivation on therapist interest, $F(1, 100) = 62.4$, $p < .0001$, and a marginally significant effect of therapist motivation on therapist efficacy, $F(1, 100) = 3.3$, $p < .08$. As predicted, participants believed that volunteer therapists would be more interested in counseling ($M = 21.5$) and would be more effective ($M = 11.7$) than paid therapists ($Ms = 14.4$ and 10.4, respectively). Perceived therapist motivation also affected beliefs about the extent to which Chris would actually change his behavior, $F(1, 100) = 4.4$, $p < .04$, such that volunteer therapists were believed to facilitate more positive behavior change ($M = 15.4$) than paid therapists ($M = 13.6$).

Interactions Between Client and Therapist Motivation

The preceding main effects were qualified by several reliable higher order interactions. Specifically, an ANOVA revealed a marginally significant Client × Therapist Motivation interaction on beliefs about positive behavior change, $F(2, 100) = 2.72$, $p < .07$, and significant interaction effects on client interest in treatment, $F(2, 100) = 4.81$, $p < .01$, and therapist interest in counseling, $F(2, 100) = 5.93$, $p < .004$. If the client was autonomously motivated, the motivation of the therapist did not alter participants' expectations of positive behavior change. However, if the client was legally coerced into treatment, a volunteer therapist was expected to

[2] Because of the unrepresentative nature of this convenience sample, we performed analyses of covariance on the dependent measures using participants' age and sex as covariates. None of the substantive results reported herein were altered by statistically controlling for any effects of these participant characteristics on the outcome measures.

Table 2
Factor Loadings for Therapist Process and Outcome Items

Item	Factor 1	Factor 2
The counselor is interested in helping Chris.	.87	
Chris would believe that the therapist really wanted to give counseling.	.81	
Chris believes that the therapist really wants to help people.	.75	
The counselor could really empathize with the struggles Chris would have during therapy.	.74	
The counselor probably won't do too much good for Chris. (reversed)		.76
The counselor will be very effective in helping Chris with his drinking problem.		.71
Chris probably feels really distant from the counselor. (reversed)		.70

produce more positive behavior change ($M = 17.05$) than a paid therapist ($M = 14.3$, $p < .05$). Similarly, if the client entered treatment because of impression management concerns, a volunteer therapist was expected to produce more positive behavior change ($M = 13.1$) than a paid therapist ($M = 10.2$, $p < .05$).

If the client exhibited controlled motivation (of either type), perceived therapist motivation did not alter expectations of relatively low levels of client interest in the treatment process. Conversely, among autonomously motivated clients, paid therapists were expected to generate greater client interest in treatment ($M = 16.3$) than volunteer therapists ($M = 13.2$, $p < .05$), perhaps reflecting expectations of enhanced professionalism in execution of the job.

Finally, if the client was portrayed as being autonomously motivated, whether the therapist was a volunteer or paid made no difference in terms of affecting therapist interest levels. However, in interacting with legally coerced and impression management clients, volunteer (autonomously motivated) therapists were expected to show higher levels of interest (Ms = 22.7 and 22.1, respectively) than were paid therapists (Ms = 13.5 and 13.3, respectively, ps < .05).

Discussion

Implicit theories about the etiology of alcohol abuse (Morgenstern & McCrady, 1992) and labels affixed to drinkers (Cash et al., 1984; Kilty, 1981; Rodin, 1981; Rule & Phillips, 1973; Stafford & Petway, 1977) systematically alter people's expectations about the conditions that promote maximal efficacy for alcohol treatment. Our study expands this literature by demonstrating that perceived motivation of clients and therapists also affects expectations about treatment process and outcome. Using self-determination theory (Deci & Ryan, 1985, 1987), the first hypothesis of the study was that people would believe that alcohol treatment would be most effective when clients and therapists approach alcohol treatment on the basis of individual choice and interest in treatment (i.e., when the people involved are perceived as being autonomously motivated to engage in treatment). Our results provide good support for this hypothesis: Clients who were perceived as freely choosing to enter treatment and therapists who were perceived as being genuinely interested in counseling were believed to enhance treatment efficacy, in which the term *efficacy* was empirically defined with reference to (a) positive behavior change (i.e., cutting down on drinking), (b) client interest in the treatment process, and (c) effectiveness of the therapist in the counseling process.

Our second hypothesis was that people would believe that alcohol treatment would be least effective when clients and therapists approached treatment on the basis of external pressures, coercion, and rewards (i.e., when the people involved exhibited controlled treatment motivation). Our results also support this hypothesis: The lowest levels of expected treatment efficacy were observed when clients were entering treatment only to manage impressions and when therapists exhibited controlled motivation.

The results of our study also confirm the importance of examining different types of controlled motivation among clients entering alcohol treatment. Specifically, one type of

controlled motivation (e.g., compulsory treatment ordered by a judge) had no detrimental consequences on expectations about behavior change but was believed to undermine interest in the treatment process. This perhaps reflects the common belief that social controls encourage temporary compliance (e.g., temporary reductions in consumption or abstinence) but are not associated with long-lasting behavior change. Future researchers should examine whether legal sources of coercion are anticipated to have temporary effects but no permanent changes in attitudes or behavior. By contrast, another type of controlled treatment motivation (e.g., wanting to create a favorable impression on a judge) was believed to uniformly undermine both positive behavior change and interest in treatment.

Our third hypothesis was that respondents would believe that autonomously motivated therapists can reverse the negative effects on treatment process and outcome that are expected to occur with clients who exhibited controlled motivation. When a client is genuinely interested in change (i.e., when he or she is autonomously motivated), motivation of the therapist makes little difference in terms of influencing beliefs about treatment efficacy. On the other hand, people believe that autonomously motivated therapists can reverse the expected negative consequences associated with compulsory treatment and impression management. These results are consistent with clinical research showing that when substance abusers successfully change their behaviors in the course of treatment, they report increasing attachment to therapists, along with a corresponding shift from controlled to autonomous motivation (Lovejoy et al., 1995).

To summarize, our results confirm that perceived motivation is an important determinant of people's beliefs about the efficacy of alcohol treatment. One limitation of our study was that we used a small, unrepresentative sample. Nevertheless, our results are consistent with other research on perceived motivation (Wild et al., 1992; Wild, Enzle, et al., 1997) showing that people closely calibrate expectations about task interest relative to perceptions of the motivational orientation that others adopt toward activities. If people's beliefs about treatment efficacy are malleable, depending on the perceived motivation of clients and therapists, it is reasonable to expect that in actual client–therapist interactions, verbal and nonverbal cues indicating that clients and counselors have adopted a controlled motivational orientation can be expected to have detrimental consequences with respect to promoting client involvement in behavior change. This possibility will be examined in further empirical work.

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