Hypnosis for the control of hiv/aids-related pain

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HYPNOSIS FOR THE CONTROL OF HIV/AIDS-RELATED PAIN

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Abstract: This intensive case study used an A-B time-series analysis design to examine whether 5 adult patients with various AIDS-related pain symptoms benefited from a hypnosis-based pain management approach. The 3 dependent variables in this study were: (a) self-ratings of the severity of pain, (b) self-ratings of the percentage of time spent in pain, and (c) amount of p.r.n. pain medication taken. Data were collected over a period of 12 weeks, including a 1-week baseline period and an 11-week treatment period. Autoregressive integrated moving-average (ARIMA) models were used to determine the effects of the hypnotic intervention over and above autoregressive components in the data. All 5 patients showed significant improvement on at least 1 of the 3 dependent variables as a result of the hypnotic intervention. Four of the 5 patients reported using significantly less pain medication during the treatment phase.

Patients with HIV/AIDS typically suffer from pain associated with rashes, headaches, sore throats, oral candidiasis (thrush), oral hairy leukoplakia, persistent gastrointestinal pathology, opportunistic cancers, neuropathy, joint/muscle deterioration, and severe infections (Bluestone, 1995; Collett & Lester, 1969; Hintze, 1992). A number of pharmacological interventions targeting this pain can be of some benefit (Dansak, 1997; Melzak, Wall, Stephens, Weatz, & Roffman, 1993). Still, there is an ongoing appreciation for how nonpharmacological adjuncts to pain management might reduce potential for addiction as well as enhance quality of life (National Institutes of Health, 1996).

Hypnosis has been successfully used to relieve various types of pain (Montgomery, DuHamel, & Redd, 2000), including that associated with headaches (Van Dyck, Zitman, Linssen, & Spinhoven, 1992), serious burns (Patterson, Everrett, Burns, & Marvin, 1992), arthritis (Horton & Mitzdorf, 1994), cancer (Syrjala, Cummings, & Donaldson, 1992), dental procedures (Stam, McGrath, & Brooke, 1984), and chronic back ailments.
HYPNOSIS FOR AIDS/HIV PAIN

In a recent meta-analytic study, Montgom-
ery, DuHamel, and Redd suggest that hypnosis as a primary treatment
modality for pain or as an adjunctive treatment meets the criteria for a
“well-established treatment” (Chambless & Hollon, 1988). In addition,
the authors point out that: (a) a majority of patients are likely to benefit
from hypnotic interventions for pain; (b) there is no evidence to suggest
that the treatment is more or less harmful than other psychosocial inter-
ventions; and (c) hypnotic interventions can be brief and cost-effective.
There is, however, little empirical work regarding the efficacy of hypno-
sis in the treatment of HIV/AIDS-related pain (but see clinical reports,
Auerbach, Oleson, & Solomon, 1992; Harper, 1999; Reed, 1997; Taylor,
1995).

Most hypnotic interventions for chronic pain include a component of
self-hypnosis (Rhue, Lynn, & Kirsch, 1997). It appears that the patient
benefits from his or her ability to manage the therapeutic regimen. Hence,
treatment for HIV/AIDS pain should involve not only hypnotic sessions
under a therapist’s direction but also should prepare and train patients
to self-administer hypnosis at work and/or home. Patients should then
be able to use hypnosis on a pro re nata (p.r.n., as needed) basis as well as
during scheduled times both in and outside of the clinical setting.

The purpose of this study is to examine whether hypnotic treatment
as per above might benefit HIV/AIDS patients suffering HIV/AIDS-
related pain. Following the Rhue, Lynn, and Kirsch (1997) guidelines,
the treatment protocol involved hypnotic sessions under the guidance of
a therapist. Treatment also included training in self-hypnosis. Five
patients suffering long-term and intractable HIV/AIDS-related pain
completed this treatment protocol and were followed intensively over
an extended period of time. Using time-series analysis, three parameters
of pain across baseline and treatment were monitored. The parameters
are (a) pain intensity, (b) time spent in pain, and (c) amount of daily pain
medication ingested.

**Method**

**Patients**

Posters and flyers describing an opportunity to participate in a study
using self-help techniques for AIDS-related pain were sent to four
AIDS-related organizations in the Fresno metropolitan area. The first 5
patients meeting the selection criteria were chosen. The selection criteria
were: (a) patients reported experiencing painful symptoms from HIV/
AIDS-related illness for at least 6 months prior to this study and were
under a physician’s care for this illness; (b) the patients were presently
experiencing painful symptoms as reported in medical records and an
initial questionnaire; and (c) patients had not achieved relief from other
forms of pain control. Four males and 1 female were thus chosen.
To make it more feasible for patients to participate in this research, the study was conducted in their homes or in a group home staffed and designed specifically for the needs of people living with HIV/AIDS. Three of the 5 patients chosen for this study were from the same group home. The other 2 patients lived independently in their own homes. The area used for conducting the treatment was a quiet room in the house. In all cases, this room included comfortable seating, dimmed lights, and relative freedom from distractions (e.g., phone, television, or radio).

Patient 1 was a Caucasian man in his mid-40s who became infected by way of sexual transmission and had lived with the disease for 12 years. At the time of the study, he was gainfully employed and lived in his own house. He reported having very strong emotional support from his family of origin. He had advanced AIDS (T-cell count of less than 300), resulting in painful rashes, chronic sore throats, oral candidiasis, and persistent gastrointestinal pains.

Patient 2 was a Caucasian man in his mid-20s who became infected by tainted blood during a blood transfusion. He estimated that he had been infected for more than 15 years and reported having no emotional support from his family of origin. He was in the final stages of AIDS and was experiencing what is known as “wasting syndrome” (AIDSweek, 1989). He was bedridden with severe loss of muscle tone and tissue deterioration and was dependent on an intravenous unit for nutrition. His AIDS-related pain included headaches, severe infections, Kaposi’s sarcoma, pain from deteriorating muscle tissue, and painful nerve damage (neuropathy), particularly in the joints.

Patient 3 was a Hispanic American man in his mid-30s who became infected via sexual transmission and had lived with HIV for 10 years. He resided in a group home for people with HIV/AIDS. He reported no emotional support from his family of origin, and his HIV-related pain involved neuropathy and headaches.

Patient 4 was an African American man in his 30s who was infected by a contaminated needle through intravenous drug use and had lived with HIV for 11 years. He was employed part-time and resided with a relative in a group home for people with HIV/AIDS. He reported having limited emotional support from his family of origin. His HIV-related pain involved persistent gastrointestinal soreness and aching joints from deteriorating tissue.

Patient 5 was a Caucasian woman in her mid-20s who became infected by way of a contaminated needle through intravenous drug use and had lived with HIV for eight years. She resided in a group home for people with HIV/AIDS and reported having no emotional support from her family of origin. Her HIV-related pain involved neuropathy, joint pain from deteriorating tissue, oral candidiasis, and headaches.
Table 1
Type and Dosage of p.r.n. Pain Medication at Baseline

<table>
<thead>
<tr>
<th>Patient</th>
<th>Medication</th>
<th>Dosage</th>
<th>Pain Severity at Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient 1</td>
<td>Vicodin</td>
<td>7.5 mg</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Motrin</td>
<td>800.0 mg</td>
<td></td>
</tr>
<tr>
<td>Patient 2</td>
<td>Valium</td>
<td>10.0 mg</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Darvocet</td>
<td>100.0 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soma</td>
<td>350.0 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elavil</td>
<td>200.0 mg</td>
<td></td>
</tr>
<tr>
<td>Patient 3</td>
<td>Vicodin</td>
<td>7.5 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tylenol</td>
<td>250.0 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aspirin</td>
<td>325.0 mg</td>
<td></td>
</tr>
<tr>
<td>Patient 4</td>
<td>Tylenol</td>
<td>200.0 mg</td>
<td>5</td>
</tr>
<tr>
<td>Patient 5</td>
<td>Aspirin</td>
<td>325.0 mg</td>
<td>8</td>
</tr>
</tbody>
</table>

Dependent Measures

The three dependent measures of the study were: (a) self-ratings of the severity of pain, (b) self-ratings of the percentage of time spent in pain, and (c) amount of p.r.n. pain medication taken daily.

The pain-severity rating scale indexed pain on a 10-point Likert-type scale. A rating scale point of “1” indicated the absence of pain, and a rating scale point of “10” indicated severe pain. This instrument was completed by the patients four times a day (9 a.m., 12 p.m., 6 p.m., and at bedtime) during the baseline and the 11-week treatment period.

The second dependent measure was the patients’ rating of the percentage of time spent in pain. The same four times a day (9 a.m., 12 p.m., 6 p.m., and at bedtime) were used for the patients to rate the percentage of time previously spent in pain. For each recording period, the patients used the following four categories to estimate the percentage of time spent in pain (Category 1, 0-25%; Category 2, 26-50%; Category 3, 51-75%; Category 4, 76-100%).

The final dependent measure was the amount and type of p.r.n. oral pain medication taken. This was recorded on the same form as the self-report rating scale data. The p.r.n. medication available for each patient is listed in Table 1. Each day, the patients recorded the number of pills that were taken for severe episodes of AIDS-related pain.

Experimental Design and Conditions

This study utilized an A-B within-subject analysis design (Barlow & Hersen, 1973; Campbell, 1969; Gottman, 1981; Gottman, McFall, & Barnett, 1969). This design allows each patient to serve as his or her own control condition and consists of two phases: a baseline and a treatment phase. The patients in the study were assessed using all three measures of pain (severity of pain, percentage of time spent in pain, and amount of
p.r.n. medication) for a 1-week baseline period and an 11-week treatment period.

Immediately following the baseline data collection, the treatment condition ensued. In the treatment condition, all patients were administered the hypnotic treatment. This treatment involved the hypnotic procedure (described below) with 10 therapist-delivered sessions (not inclusive of the self-hypnosis session on cassette tape that the patients did as daily homework). Two weeks after the last treatment session, data on the same two self-reported measures, as well as the amount of p.r.n. medication, were collected for each patient for a 1-week period.

Procedure

To minimize any potential concerns regarding the hypnotic procedure, all patients received an overview of the treatment program prior to initiating the procedures and were informed that they could withdraw their consent at any time. Prior to collecting baseline data, the patients were trained on the accurate recording of data on the data sheets. Baseline data were collected every day by having the patients complete the two scales for reporting pain and the portion of the form denoting the number of pills taken to reduce pain. These data sheets were collected weekly.

Following the collection of the baseline data, treatment for each patient was initiated within a 2-week period. Treatment sessions were weekly, with a brief introduction of hypnosis (first session only), followed by the hypnotic induction. Patients were assigned homework that consisted of practicing the hypnotic procedure independently at home along with completing the pain-rating scale daily. When feasible, more than 1 patient at a time received the hypnotic procedure.

The hypnotic procedure itself involved the following 10 sequential elements: (a) deep breathing techniques to help with relaxation and eye closure; (b) suggestions to “let go” of muscular tension; (c) hypnotic induction; (d) suggestions of “going to an imaginary garden”; (e) pain relief suggestions; (f) suggestions for sleep-related imagery; (g) further suggestions for blockage of pain; (h) reiterating suggestions for analgesia and self-hypnosis procedure as posthypnotic suggestions; (i) counting down to gradually terminate hypnosis; and (j) termination of hypnosis. The hypnotic procedure is available from the first author. The patients were instructed to practice, via audiotape, twice daily.

At the end of the study, patients were debriefed and the general results of the study were discussed.

Results

Autoregressive integrated moving-average (ARIMA) models were used to assess the effects of the intervention on dependent measures over and above autoregressive trends in the data. ARIMA modeling
allows for the determination and partialling of autoregressive influences in the data (Franklin, Alison, & Gorman, 1996). With the availability of numerous data points in a time series, several autoregressive components can be forced into a model without compromising power and without needing to investigate moving-average components (Gottman, 1981), which is how we proceeded with the analyses.

For each patient and each dependent measure, the best ARIMA model was determined by examining the Autocorrelation Functions (ACF) and Partial Autocorrelation Functions (PACF). The effects of autoregressive components were determined to be sufficiently accounted for if all autocorrelations and partial correlations of the residuals in the ACF and PACF were within two standard error limits (Gottman, 1981; Ostrom, 1990). In addition, a model was judged to be a good fit if the ACF and PACF of the residuals were random noise (Box-Ljung probabilities > .05) for each lag autocorrelation. Finally, models were determined to be a good fit only if the effects of the independent variables were robust to several different ARIMA models.

The assumption that the data were stationary was tested using the Augmented Dickey-Fuller Test (Gottman, 1981). All of the data were determined to be stationary (all \( p \) values < .0001). Because 15 models were to be tested, alpha was set to .003 (Bonferroni corrected) for each ARIMA model.

Figures 1 through 15 show changes in pain severity, time spent in pain, and medication usage. To enable concise graphic presentation, the \( y \) axes during the treatment phase were modified to accommodate the large number of data points. In all figures, each data point pictured in the treatment phase represents the first of 10 points in several consecutive series. However, the statistical analyses were performed on all available data points.

**Patient 1**

Patient 1 was a 40-year-old male who had lived with the disease for 12 years. He had advanced AIDS with numerous areas of pain (see Method section for more details). Figures 1, 2, and 3 show changes in pain severity, time in pain, and medication usage, respectively, across baseline and treatment for Patient 1.

**Pain severity.** At baseline, Patient 1’s ratings of pain severity ranged from 3 to 9 with a mean of 5.57 (\( SD = 1.69 \)). During the treatment phase, Patient 1’s pain severity ratings ranged from 1 to 7 with a mean of 2.01 (\( SD = 1.17 \)). An ARIMA (10, 0, 0) was determined to be the best fit as per examination of the ACF and PACF functions of the residuals (Box-Ljung probabilities all > .05). The intervention effect was significant over and above the autoregressive components in the model, \( t(324) = 6.97, p < .0001 \). In addition, the intervention effect was robust regardless of the ARIMA model fit to the data.
Baseline Phase  Treatment Phase

Figure 1. Patient 1's pain severity ratings across 1-week baseline and 11-week treatment phases, measured 4 times per day during both phases, with treatment phase collapsed for illustrative purposes only. (1 = absence of pain; 10 = severe pain).

Figure 2. Patient 1's estimates of time spent in pain across 1-week baseline and 11-week treatment phases, measured 4 times per day during both phases, with treatment phase collapsed for illustrative purposes only (1 = 0% to 25%; 2 = 26% to 50%; 3 = 51% to 75%; 4 = 76% to 100%).

Time in pain. During baseline, Patient 1's estimates of time spent in pain ranged from 1 to 3 with a mean of 1.75 (SD = 0.75). During the treatment phase, Patient 1's time estimates ranged from 1 to 4 with a mean of 1.67 (SD = 0.95). An ARIMA (4, 0, 0) model was determined to be the best fit as per the same criteria listed above. However, the intervention was not significant over and above the autoregressive components in the model, $t(329) = 0.30$, ns.

Medication usage. The total number of p.r.n. pain units taken daily (Vicodin-7.5mg and Motrin-800mg) ranged from 2 to 4 with a mean of 2.29 (SD = 0.76) during the baseline phase. During the treatment phase, the number of pills taken for pain ranged from 0 to 2 with a mean of 0.08 (SD = 0.31). An ARIMA (1, 0, 0) model was determined to be the best fit as per above. The intervention effect was significant over and above the autoregressive component in the model, $t(81) = 14.88$, $p < .0001$. 
Summary of Patient 1's findings. Patient 1 experienced a significant decrease in reported pain severity and required significantly less p.r.n. medication as a result of the hypnotic intervention. However, reported time spent in pain appeared to be unaffected by the intervention.

Patient 2

Patient 2 was in his mid-20s and was infected by tainted blood during a transfusion. He estimated that he had been infected for more than 15 years (see Method section for more details). Figures 4, 5, and 6 show changes in pain severity, time in pain, and medication usage, respectively, across baseline and treatment for Patient 2.

Pain severity. Patient 2's estimates of pain severity ranged from 2 to 6 with a mean of 3.75 (SD = 1.51) during the baseline phase. During the treatment phase, Patient 2's pain severity estimates ranged from 1 to 6 with a mean of 2.14 (SD = 1.15). An ARIMA (8, 0, 0) model was determined to be the best-fitting model for the data. The intervention effect was not significant over and above the autoregressive components in the model, \( t(326) = 0.90, \text{ns} \).

Time in pain. During the baseline phase, Patient 2's estimates of time spent in pain ranged from 1 to 2 with a mean of 1.5 (SD = 0.51). Patient 2's estimates of time spent in pain ranged from 1 to 3 with a mean of 1.37 (SD = 0.54) during the treatment phase. An ARIMA (12, 0, 0) model was determined to be the best fit. The intervention effect was not significant over and above the autoregressive components in the model, \( t(322) = 0.62, \text{ns} \).

Medication usage. The number of p.r.n. medication units (Valium-10mg, Darvocet-100mg, Soma-350mg, and Elavil-200mg) taken daily by Patient 2 during the baseline phase ranged from 4 to 8 with a mean of 5.86 (SD = 2.04). During the treatment phase, the number of pills taken
Figure 4. Patient 2's pain severity ratings across 1-week baseline and 11-week treatment phases, measured 4 times per day during both phases, with treatment phase collapsed for illustrative purposes only (1 = absence of pain; 10 = severe pain).

Figure 5. Patient 2's estimates of time spent in pain across 1-week baseline and 11-week treatment phases, measured 4 times per day during both phases, with treatment phase collapsed for illustrative purposes only (1 = 0% to 25%; 2 = 26% to 50%; 3 = 51% to 75%; 4 = 76% to 100%).

Figure 6. Patient 2's consumption of p.r.n. pain medication across 1-week baseline and 11-week treatment phases, measured 1 time per day during both phases, with treatment phase collapsed for illustrative purposes only (number of various p.r.n. pain tablets consumed).
daily ranged from 0 to 5 with a mean of 1.86 ($SD = 1.96$). An ARIMA (1, 0, 0) model was determined to be the best fit. The intervention had a significant effect over and above the autoregressive component in the model, $t(81) = 4.36, p < .0001$.

**Summary of Patient 2's findings.** Patient 2 did not experience a significant decrease in reported pain severity or time spent in pain. However, the hypnotic intervention appears to have had a significant effect on the amount of medication this patient used daily.

**Patient 3**

Patient 3 was a Hispanic American man in his mid-30s who was infected via sexual transmission and had lived with HIV for 10 years (see Method section for more details). Figures 7, 8, and 9 show pain severity, time in pain, and medication usage, respectively, across baseline and treatment phases.

**Pain severity.** Patient 3's ratings of pain severity during the baseline phase ranged from 1 to 7 with a mean of 2.32 ($SD = 1.87$). During the treatment phase, Patient 3's pain estimates ranged from 1 to 5 with a mean of 1.49 ($SD = 0.98$). An ARIMA (4, 0, 0) model was determined to be the best fit. The intervention effect was significant over and above the autoregressive components in the model, $t(330) = 3.19, p < .002$.

**Time in pain.** During the baseline phase, Patient 3's estimates of time spent in pain ranged from 1 to 4 with a mean of 1.75 ($SD = 1.08$). During treatment, these ratings ranged from 1 to 3 with a mean of 1.16 ($SD = 0.49$). An ARIMA (5, 0, 0) model was determined to be the best fit. The intervention effect was significant over and above the autoregressive components in the model, $t(336) = 5.27, p < .0001$.

**Medication usage.** The number of p.r.n. units (Vicodin-7.5mg, Tylenol-250mg, and aspirin-325mg) taken daily by Patient 3 during the baseline phase ranged from 1 to 2 with a mean of 1.5 ($SD = 0.41$). During the treatment phase, the number of pills taken daily ranged from 0 to 3 with a mean of 0.56 ($SD = 0.84$). An ARIMA (4, 0, 0) model was determined to be the best fit. The intervention effect was only marginally significant over and above the autoregressive components in the model, $t(84) = 2.16, p < .035$.

**Summary of Patient 3's findings.** Patient 3 reported a significant reduction in both pain severity and time spent in pain. However, the reduction in the amount of pain medication used by Patient 3 was only marginally significant after the Bonferroni correction.

**Patient 4**

Patient 4 was an African American man in his 30s who became infected by way of a contaminated needle through intravenous drug use and had lived with HIV for 11 years (see Method section for more
Figure 7. Patient 3's pain severity ratings across 1-week baseline and 11-week treatment phases, measured 4 times per day during both phases, with treatment phase collapsed for illustrative purposes only (1 = absence of pain; 10 = severe pain).

Figure 8. Patient 3's estimates of time spent in pain across 1-week baseline and 11-week treatment phases, measured 4 times per day during both phases, with treatment phase collapsed for illustrative purposes only (1 = 0% to 25%; 2 = 26% to 50%; 3 = 51% to 75%; 4 = 76% to 100%).

Figure 9. Patient 3's consumption of p.r.n. pain medication across 1-week baseline and 11-week treatment phases, measured 1 time per day during both phases, with treatment phase collapsed for illustrative purposes only (number of various p.r.n. pain tablets consumed).
Pain severity. Patient 4’s ratings of pain severity during the baseline phase ranged from 4 to 10 with a mean of 7.64 (SD = 1.79). During the treatment phase, Patient 4’s pain ratings ranged from 1 to 10 with a mean of 3.55 (SD = 2.89). An ARIMA (1, 0, 0) model was determined to be the best fit. The intervention effect was not significant over and above the autoregressive component in the model, t(333) = 1.42, ns.

Time in pain. Patient 4’s estimates of time spent in pain during the baseline phase ranged from 2 to 4 with a mean of 3.18 (SD = 0.61). During the treatment phase, ratings of time spent in pain ranged from 1 to 4 with a mean of 2.24 (SD = 1.12). An ARIMA (2, 0, 0) model was determined to be the best fit. The intervention effect was not significant over and above the autoregressive components in the model, t(332) = 0.32, ns.

Medication usage. The number of pills (Tylenol-200mg) taken daily by Patient 4 during baseline ranged from 0 to 2 with a mean of 0.71 (SD = 0.76). During the treatment phase, the number of pills taken daily ranged from 0 to 1 with a mean of 0.03 (SD = 0.16). An ARIMA (2, 0, 0) model was used. The intervention effect was significant over and above the autoregressive components in the model, t(80) = 6.60, p < .0001.

Summary of Patient 4’s findings. The hypnotic intervention did not appear to significantly affect this patient’s ratings of pain severity or time spent in pain. However, the intervention appears to have reduced the amount of pain medication used by the patient.

Patient 5

Patient 5, a woman in her mid-20s who was infected by a contaminated needle through intravenous drug use, had lived with HIV for 8 years (see Method section for more details). Figures 13, 14, and 15 show
pain severity, time in pain, and medication usage, respectively, across baseline and treatment phases.

**Pain severity.** During the baseline phase, Patient 5’s ratings of pain severity ranged from 1 to 10 with a mean of 4.0 (SD = 3.28). During the treatment phase, Patient 5’s pain ratings ranged from 1 to 10 with a mean of 2.74 (SD = 2.55). An ARIMA (15, 0, 0) model was determined to be the best fit. The intervention effect was significant over and above the autoregressive components in the model, t(319) = 4.34, p < .0001.

**Time in pain.** Patient 5’s estimates of time spent in pain ranged from 1 to 4 with a mean of 1.93 (SD = 1.21) during the baseline phase. During the treatment phase, Patient 5’s estimates of time spent in pain ranged from 1 to 4 with a mean of 1.47 (SD = 0.92). An ARIMA (13, 0, 0) model was determined to be the best fit. The intervention effect was only marginally
significant over and above the autoregressive components in the model, $t(321) = 1.97, p < .05$.

Medication usage. The number of pills (aspirin-325mg) taken daily during the baseline phase ranged from 1 to 2 with a mean of 1.14 ($SD = 0.38$). During the treatment phase, the number of pills taken daily ranged from 0 to 1 with a mean of 0.04 ($SD = 0.19$). An ARIMA (1, 0, 0) model was determined to be the best fit. The intervention effect was significant over and above the autoregressive component in the model, $t(81) = 11.03, p < .0001$.

Summary of Patient 5’s findings. Patient 5 reported a significant decrease in severity of pain and demonstrated a significant reduction in the amount of pain medication used. However, there was only a marginal effect for the patient’s reported time spent in pain.
Follow-up Information

An anecdotal follow-up: One year after treatment was conducted, Patients 3, 4, and 5 could not be contacted. Patient 1 reported not experiencing any significant pain due to illness. He practices hypnotic procedures about once a month and is not taking any pain medication. Patient 2 reported that he has less pain than at baseline and that he practices hypnosis about two times per month.

DISCUSSION

All 5 of the patients showed significant improvement on at least one of the three dependent measures. Four of the 5 patients used significantly less medication following the hypnotic treatment intervention. Three of the 5 patients reported a significant decrease in pain severity and 1 reported a significant decrease in the amount of time spent in pain. The effects of the treatment on the dependent measures suggest (though do not fully document) the effectiveness of hypnosis as a viable method to manage HIV/AIDS-related pain.

The time-series nature of this study (simple A-B designs with control baseline periods) requires a conservative approach to inference. With significance obtained, one can merely infer that the value of the dependent variable (e.g., reported severity of pain) during the treatment phase was indeed lower than during baseline. One cannot definitely conclude that the hypnotic intervention per se was responsible for the shift. Hence, the present time-series design in no way rules out the possibility that these significant shifts were in part (or entirely) a product of nontreatment influences (e.g., an upturn in the economy, changes in the family environment) or to nonspecific treatment factors of therapeutic attention, support, and demand characteristics. Although the benefit of hypnosis is suggested by the fact that improvement is associated with the treatment phase, cause per se is not established. However, in the context
of the strong empirical findings to date regarding the efficacy of hypnosis as a pain management technique for other types of patients, the present findings should not be surprising and certainly support the notion that the benefits of hypnotic interventions might well be extended to HIV/AIDS patients, at least in regard to pain.

Even if one could infer a cause-effect relationship between hypnosis and improvement, the small number of patients in the study does not allow for a conclusion regarding the generality of the effect across other patients with AIDS-related pain. Indeed, the only proper conclusion for a time-series study is that the intervention phase was associated with clinical benefit for the patients studied. People living with HIV/AIDS have different symptoms and/or medical conditions that vary depending upon general health, genetic predisposition, and immune status. The effects of this study may not generalize to the broader population of people who sustain pain while living with this disease. In this regard, a major finding of this study (that p.r.n. pain medication was reduced during treatment across subjects) may or may not hold for HIV/AIDS patients experiencing more extreme pain. Though the patients in our sample complained of significant pain (a mean of 4.66 on a 10-point scale), only 2 of these patients' baseline ratings were above 5, and only one was prescribed a narcotic. Hence, whether and to what extent patients with more pain would decrease p.r.n. pain medication in response to hypnosis is at this point unknown.

We surmise that hypnosis can indeed be effective with HIV/AIDS patients and that teaching self-hypnosis techniques may be as important for these patients as it is for other types of pain patients. If this is in fact shown to be the case, it is possible that prudent application of such psychosocial interventions might actually reduce the substantial medical costs associated with HIV/AIDS treatment (AIDSweek, 1989) by alleviating the high-cost usage of visits to the primary physician, the hospital, and other medical support facilities. Of course, the viability of this position awaits future research using larger numbers of patients, randomized group assignment, extended follow-up, direct documentation of medication usage, administration of standardized hypnotizability scales, and multiple control groups including active placebos.

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L’hypnose dans le contrôle de la douleur due au HIV/AIDS

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Résumé: Cette étude intensive de cas cliniques a utilisé un modèle A-B de suivi dans le temps afin d’examiner si 5 patients adultes porteurs de douleurs dues à un AIDS ont pu bénéficier d’une approche hypnotique spécifique. Les 3 variables de cette étude: a) auto-évaluation de la sévérité de la douleur, b) auto-évaluation du pourcentage de temps douloureux, c) quantité de p.r.n. médicaments antalgiques absorbée. Les résultats furent rassemblés pendant 12 semaines incluant une semaine sans traitement et 11 semaines de traitement. Les modèles ARIMA (moyennes mobiles d’auto-régression intégrée) furent utilisés pour déterminer les effets de l’intervention hypnotique au-delà et au-dessus des composants auto-régressifs des résultats obtenus. Les 5 patients ont obtenu de façon significative une amélioration d’au moins 1 variable sur 3 à la suite de l’intervention hypnotique. 4 des 5 patients ont rapporté une diminution significative de la consommation d’antalgiques pendant la phase de traitement.

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La hipnosis para el control del dolor relacionado a VIH/SIDA

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Resumen: Este estudio intensivo de caso usó un diseño serial A-B para examinar si 5 pacientes adultos con varios síntomas de dolor relacionados con el SIDA mejoraban con un enfoque hipnótico para controlar al dolor. Las tres variables dependientes en el estudio fueron: auto-registros de la severidad de dolor, (b) auto-registros del porcentaje de tiempo en dolor, y (c) cantidad de medicación de dolor PRN tomada. Obtuvimos los datos durante un período de 12 semanas, con una semana de línea base y un período de tratamiento de 11 semanas. Utilizamos modelos de promedios cambiantes integrados auto-regresivos (ARIMA) para determinar los efectos de la intervención hipnótica más allá de los componentes auto-regresivos en los datos. Todo los 5 pacientes mostraron mejorías importantes en por lo menos un de las tres variables dependientes como resultado de la intervención hipnótica. Cuatro de los 5 pacientes mencionaron usar significativamente menos medicación para el dolor durante la fase de tratamiento.

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