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Heroin Addiction and Altered States *Can a Single Process-Oriented Intervention Help?*

Abstract

Process Work, a modern experiential psychotherapy model, understands addiction as goal-oriented behavior, which seeks states of consciousness that are missing from the addicted person's everyday life. This pilot study investigates the effectiveness of a single process-oriented intervention, in terms of its ability to help opiate-dependent people establish and maintain longed-for states of consciousness - seen as potential change episodes. Two sessions with 13 opiate-dependent persons are compared: a verbal-exploratory session and an intervention session, both held with genuine therapeutic intent. The intervention effects are assessed on a self-rating measure called the Sense of Coherence Scale (SOC-13, Antonovsky 1979, 1987), in addition to being assessed on the rater-dependent Experiencing Scale (EXP, Klein et al 1969), and on the Process-Index (PI), which is an adaptation of the EXP introduced by the author. The results demonstrate highly significant improvements toward the health end of the health/illness continuum, as well as greater involvement in the therapeutic process and/or significantly increased levels of self-awareness. In research literature, these measures correlate with better health and more successful therapeutic outcomes.

Introduction

Process Work is an innovative experiential psychotherapeutic model with roots in Jungian psychology, philosophical Taoism and indigenous traditions, communication and systems theory, as well as modern physics. It is an awareness practice based on the hypothesis that the keys to solutions are contained within the disturbances themselves - in symptoms, altered states, relationship and group dynamics as well as social and environmental processes (Mindell 1982-2002). This article demonstrates tentative empirical evidence for the effectiveness of a particular process-oriented intervention for working with addictive processes, specifically, opiate dependency, **on the measures employed in this study.** The feeling attitudes (Mindell 1995) that guide the techniques arise from the belief in a *causa finalis* of processes and events.

Accordingly, Process Work views addiction as purposeful or goal-oriented behavior related to the search for altered states of consciousness (ASC). Further, Process work honors this search as an expression of the normal human drive for transformation and wholeness (Jung 1979).

Through the use of addictive substances, people may be seeking specific experiences that are typically lacking in their everyday lives. When the addictive impulse is understood in this way, as a striving to get in touch with neglected states of consciousness, new opportunities for therapeutic interventions arise (Hauser 1994, 2000). For example, conventional addiction treatments may be complemented with drug-free experiential interventions designed to promote whatever altered or yearned-for state the addicted person is seeking (Mindell 1989a, 2000a). The process-oriented intervention investigated in this study teaches the client how to experience and unfold the 'high', and to use it to develop new behavioral patterns¹. The practice of 're-accessing the state' is guided by feedback and special feeling attitudes (Mindell 1995) and aims at helping the client own whatever experiences he/she marginalizes and acts out in drug addiction instead of using the substance. 'Being' or 'living' the alternate state, the client learns to access the qualities of the longed-for state and use them for sustainable life style changes.

Alternate experiential states of consciousness related to addictive processes can lead beyond states of distress, personal identities, and societal roles into experiences, however momentary, of bliss, oneness and belonging. This correlates with transpersonal theories of addiction that evolve from Jung's dictum, "*spiritus contra spiritum*" (Adler 1984) - using spiritual experiences to cure the addiction to spirits - which stresses the benefit of numinous experiences in the recovery from addiction (AA 1953; Leuner 1996; Grof und Grof 1990).

This pilot study examines the effectiveness of a single process-oriented intervention designed to establish—without drugs, and with a sober attitude - the specific mind/body state desired by the client. In an interactive process that is closely aligned to the client's

¹ The use of the term 'high' highlights the growing acceptance of the positive functions of ecstatic states in the recovery process (Heggenhougen 1997).

unique verbal and non-verbal feedback, the longed-for altered state is stimulated and expanded by focusing attention on the client's "sentient experiences" (Mindell 2000a), emerging behavioral tendencies, body sensations, and emotions. In addition, movement, relationship dynamics, sound, and imagery are encouraged and amplified until deeply felt personal meanings emerge and new behavioural patterns manifest which can be integrated in the present (in role play, fantasy, creative expression, or in the relationship).

For this study, two sessions with 13 heroin-dependent persons are compared: a verbal-exploratory session and a guided inner-work procedure to "re-access the state of consciousness produced by the substance" (Mindell 1989a, 2000a). Both sessions are held with the intent to help and are assessed on a self-rating measure of health (Sense of Coherence, Antonovsky 1979; 1987). In addition, the two sessions are evaluated according to two rater-dependent scales designed to measure client involvement in the process (Experiencing, Klein et al 1969; Process Index, Hauser 2001). These measures were chosen for their affinity with process work, i.e. the common interest in the coherence of one's experiential world and one's connection to the sentient living process (Gendlin 1962). In addition, the research focus on altered states as an 'episode of change' relates process the paradigm of 'process psychotherapy research' (Rice and Greenberg 1994) used to study experiential psychotherapy (Gendlin 1986; Greenberg et al 1998).

Interrater-reliability and the effects of independent variables on in-session outcome are also evaluated. The results suggest that accessing and experiencing the longed-for state may be health-promoting. It must be noted that these conclusions are tentative, due to the methodological limitations of the study.

Drug use and treatment

Drug abuse is an enormous social problem touching on the lives of millions of people around the world in both developed and developing countries. An estimated 180 million people world-wide use illicit drugs such as cannabis, amphetamines, cocaine, and opiates. Of about 13 million opiate-dependent people, an estimated nine million use heroin. Generally speaking, a society's most vulnerable, poor, and marginalized groups suffer the greatest consequences of this illicit drug use. In turn, society as a whole suffers, with

devastating effects on the health and well-being of individuals, families, and communities (United Nations: World Drug Report, 2000).

Treatment effectiveness is limited, in part because only a fraction of substance abusers – between 8% to 30% (Rotgers et al 1996) - seek treatment. Of those who choose conventional treatment such as **Twelve Step** groups, psychotherapeutic support, or methadone maintenance programs, 30-40% relapse within a year after treatment termination in spite of follow-up care (ibid.). Methadone maintenance programs, some combined with psychotherapeutic interventions (McLellan et al 1993), have been shown to reduce drug use, decrease criminal activity, and improve social functioning and health (US GAO 1998; Dole 1999). Cognitive-behavioral therapy (GAO 1998) and family-based programs (Bukstein 1996, Stanton et al 1997) have also shown favorable results for treatment retention, reduction of drug use, and alleviation of problem behaviors.

One of the most significant ingredients in successful therapy and drug treatment outcome is a positive *therapeutic alliance*, characterized by therapist empathy and genuineness (Horvath and Greenberg 1994). This is particularly true for addiction treatment, because motivation and follow-through are often difficult for addicts (Najavits et al 1994; Petry et al 1999).

Respecting addiction as a "search for wholeness", and not mere pathology, can provide a strong foundation for the therapist to empathize and work with an addicted person most effectively. Precise feedback methods may also be used to improve a therapist's interpersonal skills, thereby facilitating better working relationships with clients. Further studies could address these considerations and measure improvement of the therapeutic alliance (Gaston 1990; Belding et al 1997).

Psychotherapy Process Research

Tremendous effort in psychotherapy outcome research from the 1940's to the mid-70's established that therapy was overall more effective than not (Smith and Glass 1977) while outcome was found to be largely independent of the specific therapy forms studied. Consequently, Luborsky (1975) concluded, agreeing with Lewis Carroll's Dodo bird that

"all won and all must have prizes". It became increasingly clear that the search for universal or general principals in experimental psychotherapy research poses a number of methodological problems, namely, its basis on a fuzzy notion of what really happens in a therapy session (Kadzin 1998). The 80ties brought about a paradigm change in psychotherapy research toward defining and researching in-session microprocesses (Gendlin 1986). The paradigm of Psychotherapy Process Research (Rice and Greenberg 1984; Greenberg and Pinsof 1986) developed new strategies to examine in-session events with the goal of discovering mechanisms of client change. Such discovery-oriented approaches (Mahrer 1986, 1988) encourage the researcher to choose in-session "episodes of interest" for investigation (Elliott 1991).

The episode of interest investigated in this study is the altered state or "high" that the client yearns for, along with the therapist-client interaction related to accessing, amplifying, and maintaining this state. Altered states of consciousness are evaluated for their potential value as "patterns of change"—critical, decisive in-session events with a beginning and an end—recognized by psychotherapists according to markers based on 'process structure analysis' (Mindell 1985) or "process diagnosis"².

Process Structure Analysis

Process Structure Analysis (Mindell 1985; Goodbread 1997) enables the researcher/therapist to describe in-session events according to the basic polarity of 'self versus other' and is used to differentiate normal states of consciousness ('I', or the state that the person usually identifies with) from altered states of consciousness ('Not-I'). Both client and therapist experiences and behaviors can be identified along this continuum of self-versus-other, namely, the extent to which one identifies with one's experiences, behavior, and personal forms of expression, or tends to disown them. Parameters related to personal and relational awareness (verbal and non-verbal signals) may be used to assess location on this continuum. In addition, the modalities or the channels of the process that carry visual, auditory, proprioceptive, kinesthetic, relational, and environmental "signals" - which are

² Process Work and experiential therapy agree on the need for 'process structure analysis' (Mindell 1985) or 'process diagnosis' (Leijssen in Greenberg et al 1998) to identify and work with in-session microprocesses (such as ASC).

either occupied by a person's normal ('I') or altered state ('Not-I') - can be identified and employed to unfold further the specific experience / process of interest (Mindell 1985a).

Primary processes (PP) are messages and signals, which people are aware of and with which they would identify (either spontaneously or if asked). *Secondary processes* (SP) are unintentional messages or events to which people have little conscious relationship. Secondary processes are further removed from awareness and are generally perceived as beyond one's control.

The therapist can use process structure analysis to identify experiential patterns in degrees of association to a person's awareness. In working with addiction, this kind of information then is used to support a client shift from a normal state of consciousness into one that is slightly altered. Next, the therapist can pay close attention to client feedback, using techniques designed to amplify what is present *here and now* in the client's imagination of the desired altered state.

Altered States

Altered states of consciousness are those that differ from our usual states (Mindell 1989), particularly in regard to focus of attention, levels of awareness and degree of sensitivity to sensory perceptions (Walsh 1995). Together, they make for a qualitative shift, an "alteration of the overall patterning of consciousness" (Tart 1983:14). Such alterations in the functioning of the mind are recognizable not only by the person having the experience, but also by outside observers (Tart 1969). ASC correspond to the lived experience of secondary processes, disavowed experiences, or states of mind less familiar to the person.

ASC are marked by a shift in attention, along with a channel change into less familiar modalities of experiencing. Cues to some of these experiential modalities can be found in the qualities of voice, body positions, eye movements, breathing patterns, the syntactic structure of sentences, and the use of verbs (Bandler and Grinder 1975). When unfolded and carried forward, a vague sensation may become an image, a felt 'that' ... , a movement may arise, a feeling, a poem, or an appreciation of the relationship expressed and focused on.

On the whole, drug experiences often arise and unfold in typically less familiar modalities such as body sensations, feelings, interpersonal relations, or movement, wherein lie "the most powerful and uncontrolled experience" (Mindell 1985:24). Integration of these unfamiliar modalities can bring the experience back into the more typically primary sensory modalities (auditory and visual) as stories, images, and reflections. For the therapeutic process to be effective, it is essential to help the client identify and access these unfamiliar or previously disavowed aspects of the self and move into new or altered personality states (Mahrer 1996).

Methodology

The study is modelled as an AB design³ to compare two kinds of interventions across a group of 13 opiate-dependent subjects (Kazdin 1998). The initial session was a verbal-exploratory session, while in the second the therapist intervened using a structured process to access and unfold the longed-for state. Both sessions were conducted with the intent to help, rather than merely gather data. In this design, the first, (verbal-exploratory) session served as a control for the effect of intervention in the second, whose therapeutic gains came on top of those from the first session⁴. The selection of segments for the ratings relies on qualitative considerations, namely, the identification of episodes of maximum feeling/sensing or altered-states.

Procedures

Participants

The subjects for this clinical trial were 13 men and women who volunteered to participate. For inclusion, individuals had to be opiate-dependent in accordance with the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association 1994). Exclusion criteria were an unwillingness to focus on the self, and primary illicit use of substance other than opiates.

A diagnosis of opiate-dependency was determined from information collected at the initial interview, using the DSM-IV checklist and the drug section of the Addiction Severity

³ Two interventions are applied sequentially across one group.

Index (ASI: McLellan et al 1985), and based on information provided by the residential facility or the methadone clinic. In addition to the diagnosis of opiate-dependency, most subjects concomitantly also used cocaine, alcohol and/or marijuana. In average, the 13 research subjects made 2.5 attempts at treatment of their opiate-dependency (inpatient detoxification, methadone or residential treatment)⁵.

Eight persons were worked with while in court-mandated residential treatment centers. Five people responded to an advertisement in a local newspaper. Of these five, three people were in a methadone program, and two were untreated heroin users at the time of the interview.

Study duration

Participation in the study was for two sessions of 55-60 minutes each. The time period between the first and the second interview ranged from two to nine days, and in one case, 21 days (mean, or 'x' =6.7; standard deviation, or 'SD'=5).

Procedures

Two sessions per client were provided by the therapist/researcher. The first was a verbal-exploratory session, and the second hour included an intervention designed to 're-access the state'. Both sessions were recorded with a video camera.

In the first session, the client was welcomed and introduced to a brief synopsis of the process-oriented perspective on addiction. Two kinds of participation were required of the client. First, body-grounded focusing was necessary, and second, the procedure demanded a sober attitude during the exploration of the altered state. The possibility that the client's craving would increase was discussed, and the client was offered a follow-up session if desired. Informed consent, confidentiality, and video release forms were signed by both client and therapist.

Next, the client was invited to explore personal, familial, drug-related, and health problems. Each client was then asked to describe the state of consciousness induced by heroin, as well as a childhood dream or first memory. The therapist was available to help

⁴ I would like to thank Dr. D. Podkorny, University Ulm, Germany, for advice on the methodology of the study.

the client elaborate and clarify feelings as they emerged. Although the underlying secondary process was supported, verbal interaction dominated the initial session.

In the second session, following time for the client's questions and concerns, the therapist asked permission to proceed with instructions to access the altered state. The intervention followed several steps, which included inviting the client to shift attention inward and focus on inner experiences in order to access the longed-for state typically accessed through drug use.

Intervention

- 1) The first step encourages the client to recall the central yearning behind the drug use while the therapist supports non-verbal cues of the state described and helps to unfold the experience (often not yet verbalizable) until meaning is directly experienced.
- 2) The next step facilitates integration of the altered state into relationship and/or a group situation (real, fantasized, imagined, or a combination of these). The client is encouraged to bring this new personality state in relating into the present moment through fantasy, role play, or relationship with the therapist. (From Mindell: *Dreaming While Awake*, 2000, p.168-170)

Measures

The **Sense of Coherence Scale (SOC-13)**, a self-assessment instrument used in psychosomatic medicine (Sack *et al* 1997), is based on the concept of "salutogenesis", which researches health-promoting factors (Antonovsky 1979, 1987). The short version of the SOC-13 contains 13 questions on a rank scale from 1 (very seldom) to 7 (very often). The salutogenic orientation promotes interventions that increase a person's "Sense of Coherence", defined by Antonovsky as:

...a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic, feeling of confidence that (1) the stimuli deriving from

⁵ See appendix for participant characteristics

one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement (1987:19).

People with a strong SOC are more resistant to stress and illness than people with a weak SOC: a strong SOC protects one's health (Lamprecht and Johnen 1997). Of three components, comprehensibility, manageability and meaningfulness, the sense that life has meaning and purpose seems to be the most significant health-promoting ingredient. The unique importance of the "will to meaning" was demonstrated by Frankl (1963).

The **Experiencing Scale (EXP)** assesses the quality of in-session client involvement in the therapy process or the extent of contact with inner felt referents (Klein et al 1969, 1986). Raters review transcripts and, in the present study, videotapes, and estimate the stage (1-7) at which the client operates, both at an average (mode) and at the peak level⁶. Assessment focuses on ownership and verbal expression of feelings, emotions and insights. The concept is based on the "experiencing" dimension in the psychotherapy process (Gendlin 1962), the process of attending to an inward referent, to a concrete bodily felt datum that arises from the totality our inner sentient process.

"Experiencing is a constant, ever present, underlying phenomenon of inwardly sentient living, and therefore there is an experiential side of anything...no matter whether it is a concept, an observed act, an inwardly felt behavior or a sense of a situation" (Gendlin 1962:15).

People who feel healthy enjoy higher "experiencing" than people who do not (Klein et al 1969). People in touch with an implicit referent let their felt sense directly inform their action, thoughts and feelings: the more the person is in touch with experiential process, the more congruent awareness and experience, the healthier a person feels. Studies point out positive correlation between level of experiencing and successful outcome in therapy (Kiesler 1971; Rogers et al 1967; Klein et al 1986; Hendricks 2000).

The author introduced a **Process Index (PI)** as a measure of the extent of client involvement. The PI is similar to the EXP but emphasizes awareness of being-in-contact

with inner felt referents, irrespective of the channels of experience and in addition to emotion and its verbalization (Hauser 2001). The ratings on the PI assess client processes in terms of closeness and distance from client identity and, in addition, according to the extent in which channels are occupied/unoccupied⁷ by the speaker's awareness. On the PI, the manner of process is stressed and sensory-grounded data included in the ratings.

"Dreaming is not just a spiritual or mystical factor; it is empirical, an experience, something everyone senses. For example, if you train your awareness, you can sense that you do not simply move, but that your every move is preceded by a *tendency* to move in a certain direction" (Mindell 2001:10)

The contact with "sentient" experiencing and its multi-channelled unfolding are key for the PI measure. Observation of minimal signals such as facial expressions, eye and body movements, breathing, peculiarities of voice and speech support structural consideration for the ratings.

Hypotheses

- H1** The "Sense of Coherence" (SOC-13) will significantly increase between the first and the second session.
- H2** The *peak* experiencing level of the EXP and the PI will significantly increase between the first and the second session (mean rating of three raters).
- H3** The *average* experiencing levels of the EXP and the PI will significantly increase between the first and second session (mean rating of the three raters).
- H4** SOC, EXP and PI scores in the first and second session as well as change scores (t2-t1) are independent of age, gender, race, education, treatment situation, incarceration and time lag between sessions.

Interrater-Reliability will be measured for the three trained raters on EXP and PI

Results⁸

- H1** **The Sense of Coherence was significantly higher after, as compared to before, the intervention session.** This was determined by a highly significant increase of +7.4 (SD

⁶ See Appendix for a description of the stages.

⁷ Occupied channels are carriers of primary, unoccupied channels carriers of secondary processes or altered states (see Mindell 1985).

8.7) from 49.23 (SD 12.68) to 56.62 (SD 11.76) ($p < 0.01$, on the t-test, a measure of significance). The following graph depicts positive change scores (above no-change line) in 11 clients with 2 declines (below).

→ graph SOC

The results suggest that an intervention can make a change in SOC, even in a population of many periodically homeless, long-term users of illicit drugs with severe social, medical and psychological problems. While Antonovsky (1987) believed the SOC to be a stable trait, he also pointed to the possibility of influencing the SOC by intervention: within a supportive health-oriented environment, planned "SOC-enhancing experiences" could have a longer lasting effect on the person. The results are an interesting finding, indicating that indeed the SOC can be significantly influenced by intervention and thus be used as an outcome measure (Antonovsky 1987, Sacks et al 1997).

The initial group score of the population in this study (49.23) is comparable to a population of minority women, many of whom also use drugs, whose average score is 55 (Antonovsky 1993). A surprise, rather, is the striking improvement of these long-term users of heroin in the present study ($m=11$ years, range 1 - 32 years), concomitant cocaine use ($m=8$ years, range 0-32 years) as well as alcohol abuse ($m= 11$ years, range 0-35 years) with an average of only 2.5 attempts at treatment.

The result exceeds the therapy effect Sack et al (1997) demonstrate in their evaluation of 8 week treatment for psychosomatic patients and empirically highlights the potential of a process-oriented intervention to promote movement toward the health end of the ease/disease continuum in opiate dependent persons. An increased SOC stands for an improved attitude in the face of challenges, augmented resistance to stress and more protection of one's health (Lamprecht and Johnen 1997).

H2 The peak experiencing level was significantly higher in the second intervention

⁸ I am indebted to Dr. Alojz Ritomsky, Comenius University, Bratislava, for statistical data analysis. Readers interested in detailed statistics are referred to the appendix.

session, as compared to the first session. In the re-accessing session, the extent to which subjects were in touch with inner felt referents increased by approximately half a stage from 3.24 (SD 0.48) to 3.65 (SD=0.73) ($p<0.03$) on the Experiencing Scale (see appendix for stage descriptions).

Even modest increases on the lower end of the scale are clinically valuable in populations with psychiatric conditions or severe addiction. Considering the severity of disturbance, these increases can be interpreted as clinically meaningful (M. Klein, personal communication). They have a health-promoting impact. The salutogenic benefit derives from the person's increased ability to be in touch with inner felt referents, the basic data from the life process. As demonstrated elsewhere, higher experiencing levels and therapy benefit correlate (Hendricks 2000).

Peak involvement in Process (PI) improved significantly during intervention as compared to the first session. The *one stage increase* from approximately stage 3 (+2.95; SD=0.34) to stage 4 (+4.03; SD=0.58) ($p<0.000$) represents a significant and also clinically meaningful expansion of the extent of client involvement or experiencing in session. Clients actually have learnt to focus internally and to follow the stream of their inner experiences in this session with interest and to elaborate on it to some extent.

H3 During the intervention, the average or most common stage the person operates on, was significantly higher both on the EXP and on the PI when compared with the first session. During re-accessing, the level of involvement in the process was half a stage higher on the EXP and close to a full stage higher on the PI, as compared to the first session. The significant deepening of the extent to which clients are able to be in touch with their inner lives mirrors peak measurements on both scales and demonstrates the clinical improvement from the first to the second session.

H4 Influence of independent variables on EXP and PI and on treatment effects (t2-t1): To rule out confounding of results by independent variables, their influence on first and second session EXP and PI scores as well as on treatment effects (change scores t2-t1) on all measures was calculated.

To check for a possible influence of **age** on results, two age groups, **age 35** and less (n=5) versus older than 35 (n=8) were compared (t-test). No influence was found for age nor for **education** (Spearman's rho for non-parametric data). For lifetime **incarceration**, a low (≤ 7 weeks) and a high severity group (> 24 weeks) were compared. On first session SOC scores, the low severity group (n=5) scored +11.75 points ahead of the high severity group (n=8) ($p=0.106$ trend, t-test), a trend that disappeared after the intervention session (+6.5 scores; $p=$ not significant).

For **gender**, the only significant influence of gender was found on first session PI peak scores ($p=0.021$, t-test). However, the numerical advantages of women (n=4) over men (n=9) were remarkable on all measures (+6 scores on SOC change scores) without reaching statistical significance.

For **race**, non-whites exceed the scores of whites significantly on most measures: on average and peak EXP and PI in the second session, for average and peak therapy effects on the EXP as well as for average and peak therapy effects on the PI. On the rater-independent SOC, therapy effects for non-whites amount to +13.75 and +4.55 for whites ($p=0.077$ trend). These results deserve further clarification, particularly the question as to whether gender and race bear on results with "objective" raters (in this case three women) when women or persons of colour are research subjects.

Treatment group affiliation to residential (n=8), methadone (n=3) and untreated users (n=2) yields a significant influence on treatment effects on EXP peak scores with a significant one stage advantage of the residential group versus untreated users, and methadone clients scoring ahead of untreated users by almost a stage as well. On the SOC, untreated users score 23 points less than methadone clients and 17.6 points less than residential clients. Methadone clients may be scoring higher than persons in residential treatment, because treatment duration is much longer in the former group ($\bar{x}=2$ years; SD 0.5) in comparison to the latter ($\bar{x}=7$ weeks; SD 5.32).

Time lag between sessions of between 2 and 21 days (mean 6.7; SD 5) shows a significant, negative correlation for *duration and therapy effects* on EXP peak levels ($r = -.665$; $p = 0.013$ Pearson's coefficient). The longer the time lag between sessions, the smaller the net effect on EXP. A follow-up study could assess therapy effects over time.

An **alternative hypothesis**, which could explain the effect of the intervention by potential use of illicit drugs before the session, was ruled out. Increases are identical for persons in the residential treatment group ($n = 8$) as for the overall sample (+7.4 on the SOC, $p = 0.080$ trend) and match scores on the EXP and PI as well (t-test).

Limitations

In a small sample, significant effects are difficult to demonstrate. Statistical inferences to other populations of heroin addicts cannot be drawn without a wide and random selection of subjects. In addition, a comparison group without intervention⁹ would control for 'time effects' - increased comfort with the therapist or the therapy process - while the use of independent therapists would control for possible biases of the therapist/researcher; both measures would strengthen the validity of the study. Alternatively, an ABAB¹⁰ design could control for confounding effects and evaluate the increase of scores over time.

Conclusion

Notwithstanding the limitations mentioned, this pilot study with opiate-dependent people demonstrates the potential value of "re-accessing a state" (a process-oriented intervention) to promote movement toward the health end of the ease/disease continuum, as rated on the SOC-13. As a client learns to establish the desired state without drugs, a sense of self-efficacy, resourcefulness, and optimism can return. Life is perceived to be more meaningful as inner experiences manifest purpose and reason. 'Meaningfulness' is the most crucial ingredient in the promotion of health (Frankl 1963; Antonovsky 1987, Sack et al 1997, Geyer 2000).

¹⁰ Baseline and an intervention session alternate for control of effect.

On the EXP and the PI, the intervention results in higher levels of experiencing, which is both a health-protecting factor and an indicator for good therapy outcome (Rogers et al 1967; Klein et al 1986; Hendricks 2000). The PI, with its focus on non-verbal feedback, is particularly sensitive for assessing the subtleties of experiencing. On the PI, post-intervention clients are shown to reach stage 4, which is strong evidence of improvement. At this stage, during session clients have learned to focus internally and follow the stream of inner experiences with greater awareness.

If indeed addiction is a "psychosomatic attempt to deal with distressful conflict" (McDougall 1974), then the health-promoting effect of the intervention may be for the client to feel and own experience that is somatized in the body and direct more awareness toward experiences that are closer to the threshold of what can be felt. The fact that 95% of psychosomatic patients do not have access to a felt sense (Sachse 1991) is relevant. Thus, a primary salutogenic measure for addicted people would be to increase their sensory awareness and their capacity to unfold meaning from inner experiences.

A growing body of evidence supports the value of alternative treatment of drug addiction (Heggenhougen 1997). For acupuncture, positive outcomes have been reported on treatment retention, drug use reduction, and relief from withdrawal symptoms following the use of opiates, cocaine, alcohol, and nicotine (Dodgen et al 2000). Studies on meditation, practiced twice daily for 20 minutes, have demonstrated reduction of negative emotions, improvement of self-esteem, increased self-empowerment, and enhanced well-being (Gelderloos et al 1991).

Meditation-based interventions are associated with "significantly reduced levels of drug and alcohol use" (US GAO 1998). In addition, alternative therapies often integrate spiritual components. For instance, most Twelve Step groups recognize the presence of a Higher Power and encourage an acknowledgment of powerlessness over personal drug use. While for some minority groups, a profession of power rather than powerlessness may be a more appropriate approach (Williams 1992), there is strong evidence that spiritual

treatment for alcohol and drug use is effective in certain well-defined circumstances (NIHR 1996-97).

Process Work embraces a spiritual worldview and relies on meditation, imagery, movement, and the relationship between therapist and client to support motivation and create the best conditions for change. Process Work's emphasis on addictive behaviors as "attempts at wholeness" provides a powerful salutogenic effect on the motivation for self-exploration.

In re-accessing the client's yearned-for state through a process intervention, the "missing pieces of reality" (Mindell 1993) are uncovered where least expected: in the addictive state itself. These "missing pieces" can be understood as calls to aspects of the self that call for conscious integration. By using effective tools to unfold personal meaning from the underlying experience of addiction, Process Work can be shown to support a person's recovery, nourish a renewed sense of purpose, and recreate a feeling of ease in the midst of challenge.

Appendix

Experiencing Scale Stages (Klein et al 1969)

1 The chief characteristic of this stage is that the content or manner of expression is impersonal. In some cases, the content is intrinsically impersonal, being a very abstract general, superficial, or journalistic account of events or ideas with no personal referent established. In other cases, in spite the personal nature of the content, the speaker's involvement is impersonal, so that he or she reveals nothing important about the self and the remarks could as well be about a stranger or an object. As a result feelings are avoided and personal involvement is absent from communication.

2 The association between the speaker and the content is explicit. Either the speaker is the central character in the narrative or his or her interest is clear. The speaker's involvement, however, does not go beyond the specific situation or content. All comments, associations, reactions, and remarks serve to get the story or idea across but do not refer to or define the speaker's feelings. Thus the personal perspective emerges somewhat to indicate an intellectual interest or general, but superficial, involvement.

3 The content is a narrative or a description of the speaker in external or behavioral terms with added comment on feelings or private experiences. These remarks are limited to the events or situations described, giving the narrative a personal touch without describing the speaker more generally. Self descriptions restricted to specific situations or roles are also part of stage 3. Thus, feelings and personal reactions come into clear but limited perspective. They are owned but bypassed or rooted in external circumstances.

4 At stage 4 the quality of involvement or "set" shifts to the speaker's attention to the subjective felt flow of experience as referent, rather than to events or abstractions. The content is a clear presentation of the speaker's feelings, giving a personal internal perspective or account of feelings about the self. Feelings or experience of events, rather than the events themselves, are the subject of the discourse, requiring the speaker to attempt to hold on to inner referents. By attending to an presenting this experiencing, the speaker communicates what it is like to be him or her. These interior views are presented, listed, or described but are not the focus for purposeful self-examination or elaboration.

5 The content is a purposeful elaboration or exploration of the speaker's feelings and experiencing. There are two necessary components: first, the speaker must pose or define a problem, proposition or question about the self explicitly in terms of feelings or relate feelings to other private processes. Second, the speaker must explore or work with the problem in a personal way. The exploration or elaboration must be clearly related to the initial proposition and must contain inner references that have the potential to expand the speaker's awareness of experiencing. These may also be evidence of and/or references to the process of groping or exploration itself.

6 At stage 6 the way the person senses the referent is different. There is a felt sense of the there-and-yet-to-be-fully-discovered, that is, of an unclear inner referent that has a life of its own. It is a sense of potentially more than can be immediately thought or named. This felt sense is more than a recognizable feeling such as anger, joy, fear, sadness, or "that feeling of helplessness". If familiar and know feelings are present, there is also a sense of "more" that comes along with the identified feelings.

7 The content reveals the speaker's steady and expanding awareness of immediately present feelings and internal processes. He or she clearly demonstrates the ability to move from one inner referent to another, linking and integrating each immediately felt nuance as it occurs in the present experiential moment, so that each new sensing functions as a springboard for further exploration and elaboration.

Procedures

Segments

For each client, four 5-minute segments, two from each session or, a total of 52 sequences, were selected and transcribed and, with corresponding video clips, presented to the raters in random order. The samples were to include episodes of maximal feeling/sensing/relating or altered states.

Raters selection

Raters were three volunteer process work students who responded on a local email string. They were blind as to the design of the study and participated out of interest and without financial incentives.

Rater training

Three, 4-hour sessions of training were completed using the EXP training manual (Klein et al. 1969). After each training session the rater accord was statistically evaluated (SPSS) until interrater-reliability reached 0.79 (Cronbach Alpha).

Rating procedures

After each speech turn an assessment was made ("running ratings"; Klein et al 1969) which included so-called modal and peak values. Modal ratings characterize average level of experiencing while peak ratings are given to highest levels reached in the segment.

Interrater-reliability (IRR)

IRR, a measure of consensus among raters, has been calculated using Cronbach's Alpha correlation, intraclass correlation (one-way average measure model) and Factor Analysis (Principal Component Analysis). The results are consistent across methods and show that agreements among the three raters (for EXP and PI) are 'acceptable' for the first and 'good' for the intervention session, which is especially true for EXP levels. The ratings explain 60% - 75% (EXP) and 52% - 66% (PI) of the total variance on the general factor extracted (PCA) which means that raters agree in approximately 2/3 of all cases.

In the exploratory-verbal session rater consensus is lower than in the intervention session on both EXP and PI, and overall lower for the PI than for the EXP scale. Intervention sessions seem easier to rate while inclusion of non-verbal material in PI ratings makes these assessments more problematic. Further rater training is needed particularly on the PI scale.

Cronbach Alpha, Intraclass Correlation and Principal Component Analysis (PCA)

		Cronbach Alpha		Intraclass Correlation		Total variance explained (%) Principal Component Analysis
EXPERIENCING SCALE						
AVERAGE	First session	0.684	(0.7)	0.5803	(0.6)	63.13
	Second session	0.754	(0.8)	0.6949	(0.7)	69.63
PEAK	First session	0.584	(0.6)	0.5897	(0.6)	60.27
	Second session	0.751	(0.8)	0.7581	(0.8)	74.37
PROCESS INDEX						
AVERAGE	First session	0.610	(0.6)	<u>0.3636</u>	(0.4)	56.33
	Second session	0.660	(0.7)	0.6662	(0.7)	66.21
PEAK	First session	0.518	(0.5)	0.5455	(0.6)	52.04
	Second session	0.705	(0.7)	0.7022	(0.7)	65.86

Participant Characteristics

Variable	Persons	%	Min	Max	Mean	SD
Age (years)			21	51	36.85	9.21
Gender						
Female	4	30.8				
Male	9	69.2				
Race						
White	9	69.2				
Other	4	30.8				
Relationship status						
Single	10	76.9				
Married	1	7.7				
Divorced	2	15.4				
Education						
HS not completed	2	15.4				
HS/GED completed	7	53.8				
>two years college	2	15.4				
BA completed	2	15.4				
Work						
Full time	3	23.1				
Part time	3	23.1				
Day work	1	7.7				
Unemployed	6	46.1				
Drug dependency						
Opiates (years)			0.75	32.00	11.13	9.15
Alcohol			.00	35.00	11.54	11.69
Cocaine			.00	32.00	8.15	11.19
Amphetamine			.00	15.00	2.46	4.20
Cannabis			.00	15.00	4.54	5.27
Incarceration (months)			.00	120.0	30.31	43.57
Number of treatment attempts			.00	6	2.54	1.71
Current treatment situation						
Residential	8	61.5				
Methadone	3	23.1				
None	2	15.4				
Treatment duration						
Residential (weeks)	(n=8)		2.00	16.00	7.00	5.32
Methadone (years)	(n=3)		1.50	2.50	2.00	0.50
Time between t1 and t2 (days)	(n=13)		2.00	21.00	6.69	5.02

Statistics

H1 Large effect size $d=0.85$ (Cohen¹¹); pre/post matched pairs scores ($r=0.749$; $p<0.003$).

H2 Peak EXP increased significantly from 3.24 (SD 0.48) to 3.65 (SD=0.73), with a large effect size ($d=0.68$) of +0.41 ($p<0.03$). Pre/post matched scores ($r=0.568$; $p<0.043$). **Peak PI** rose from +2.95 (SD=0.34) to +4.03 (SD=0.58) by a full stage ($p<0.000$) with a very large effect size ($d=2.27$). Pre/post matched pairs scores ($r=0.577$; $p<0.039$).

H3 Average EXP increased significantly from 2.22 (SD 0.60) to 2.71 (SD=0.47) by +0.49 ($p<0.006$), with a large effect size ($d=0.91$). Pre/post matched scores ($r=0.524$; $p<0.066$, trend). **Average PI** increased significantly from 2.15 (SD 0.38) to 2.94 (SD 0.49) by +0.79 (t-test $p<0.000$), with a very large Cohen effect size ($d=1.73$). Pre/post matched scores ($r=0.49$; $p<0.095$, trend).

H4 For **race**, non-whites exceed scores of whites significantly on the average EXP (+0.79; $p=0.02$, t-test) and the peak (+0.86; $p=0.043$) and on the average PI (+0.63; $p=0.024$) and PI peak (+0.63; $p=0.070$ trend) in the intervention session. For therapy effects on the EXP, non-whites score significantly ahead of whites in the mode (+0.74; $p=0.013$, t-test) and by +0.73 in the peak ($p=0.037$). On PI therapy effects, non-whites score higher by +0.56 ($p=0.034$) in the mode and in the peak by +0.49 ($p=0.084$ trend). On the rater-independent SOC, therapy effects for non-whites amount to +13.75 and +4.55 for whites ($p=0.077$ trend).

ANOVA detects significant influence of **treatment group affiliation** ($F=4,641$; $p=0.038$). On the EXP peak, the residential group exceeds untreated users by +1.14 ($p=0.012$, multiple comparison matrix, post hoc test), methadone clients exceed untreated users by +0.89 ($p=0.068$, trend). On the SOC, significant differences are shown for the intervention session (ANOVA; $F=5.29$, $p=0.027$). Untreated users score 23 points less than methadone clients (post hoc text, $p=0.019$) and 17.6 points less than residential clients ($p=0.016$).

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¹¹ Cohen effect size on pre/post measurements (0.2=small, 0.5=medium, 0.8=large)

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