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How do Residents of Recovery Houses Experience Confrontation between Entry and 12-Month Follow-Up?

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Abstract

The role of confrontation in recovery has been vigorously debated. Proponents suggest that confrontation can help break down denial and increase motivation. Critics point to counseling studies showing confrontation harms the therapeutic alliance and increases resistance. Frequently missing in these debates is an operational definition of confrontation that can be reliably measured. The Alcohol and Drug Confrontation Scale (ADCS) is a new 72-item measure that defines confrontation as “warnings about potential harm” that might result from substance use. Previous psychometric work using a sample of residents of recovery homes at intake (N=323) indicated the ADCS had acceptable reliability and validity. Confrontation from different sources (e.g., family, friends and professionals) was generally experienced as supportive and helpful. The goals of the current study were twofold: 1) to see if the psychometric properties of the ADCS were maintained at 6 and 12 month follow up, and 2) to see if experiences and perceptions of confrontation changed over time. Despite minor variations in the factor structure between baseline and follow up, the ADCS generally maintained good reliability and validity. At follow up, the amount of confrontation participants received declined, but it continued to be generally experienced as supportive and helpful.

Keywords

Confrontation; Recovery; Residential Treatment; Social Support

Professional and self help recovery programs that assist persons with addictive disorders typically rely on interpersonal and social processes as therapeutic agents (Moos, 2006, 2008). One of the social factors that can influence addictive behavior is social control (Moos, 2006). Essentially, social control refers to bonds that individuals have with family, friends, and social institutions that facilitate pro-social behaviors that are inconsistent with illicit drug use. In recovery programs, social control also includes monitoring compliance with program rules such as abstinence from drugs and alcohol. Ideally, there is a combination of social support for recovery and pressure that discourages substance use and other dysfunctional behaviors.

Pressure to enter treatment has been studied more extensively than the effects of social control during treatment. However, the findings on its impact are mixed. For example, some

studies have shown that social pressure facilitates entry into treatment (George & Tucker, 1996; Hasin, 1994). However, Matzger et al. (2005) found pressure from family members to change drinking was associated with more drinking and decreased probability of treatment entry. Brown, O'Grady, Battjes and Katz (2004) developed a measure to assess community support to enter treatment, the Community Assessment Inventory. Support and encouragement from family, extended family, friends and the community were viewed as facilitative of treatment entry by outpatient clients.

The pressure that clients receive during treatment to abstain from substance use and address related problem areas has typically been referred to as confrontation (Polcin, 2003). Although confrontation continues to be mostly proscribed in addiction treatment, little attention has been paid to what it means to confront (Polcin, 2006). The addiction treatment literature has usually depicted confrontation as aggressive attempts by treatment professionals to convince clients that they have an alcohol or drug problem (e.g., Miller, Benefield & Tonigan, 1993). Historically, this type of confrontation was thought to be a way to "break down denial" (Kennard, 1983). However, studies have shown that this type of confrontation can result in arguments between therapists and clients that are counterproductive and can increase rather than decrease resistance (Miller et al., 1993). Confrontation defined in this way may be particularly counterproductive for clients who have high degrees of anger (Karno & Longabaugh, 2005).

A different view of confrontation suggested that its effects might be contingent upon a variety of factors, such as the context within which it occurs, the person confronting, the perceived motives of the confrontation, and how the confrontational comment is framed (Polcin, 2003). For example, some programs educate clients when they enter treatment about the purpose of confrontation and how it can support recovery. Confrontational comments focus on how some client behaviors and attitudes have a detrimental effect on the recovery of the person being confronted and others in the program. These programs typically emphasize confrontation from peers more than staff and encourage clients who have been in treatment longer to role model productive ways of responding to confrontational comments (Polcin, 2003).

Another factor that might be important in how confrontation impacts addictive disorders is the level of skill with which it is delivered. In a study of motivational interviewing, which is widely viewed and promoted as a non-confrontational intervention, confrontation from therapists with high levels of therapeutic skill was found to improve the therapeutic alliance (Moyers, Miller & Hendrickson, 2005). The authors surmised that rather than engaging in counterproductive argumentation, these therapists may have been providing honest feedback about potential harm that increased transparency in the therapeutic alliance and thus enhanced collaboration.

This paper describes a recent innovation in how confrontation is conceptualized, measured, and experienced over time. First, we describe background work on a new measure of confrontation, the Alcohol and Drug Confrontation Scale (ADCS) (Polcin, Galloway & Greenfield, 2006). Rather than focusing on argumentation, the ADCS conceptualizes confrontation as warnings about potential harm that might result from use of alcohol or drugs. Second, we review the psychometric findings on the ADCS to date. Most of these data have been cross-sectional, taken from individuals entering sober living recovery houses within their first week. Finally, we present new longitudinal findings on the ADCS at 6 and 12 month follow-up.

Alcohol and Drug Confrontation Scale

In an effort to develop a reliable and valid construct of confrontation that could be accurately measured Polcin et al (2006) developed the Alcohol and Drug Confrontation Scale (ADCS). Confrontation was defined as the individual being told “bad things” might happen to them if they did not make changes to address substance use or make changes to maintain sobriety. Participants were told that “bad things” were things such as relapse, eviction, jail, loss of a job, loss of an important relationship, becoming homeless, and developing health or emotional problems. Confrontation was differentiated from related concepts such as pressure; pressure was viewed more broadly as any attempt to influence the person's use of substances (Room, et al, 1991). Thus, it may or may not include reference to potential harm. See Polcin (in press a) for a full discussion of confrontation and related terms including pressure and coercion.

The ADCS includes 72 items assessing confrontation during the past month that participants received from 9 different sources: spouse/significant other, family, friends, work, sober housing residents, healthcare professionals, mental health professionals, substance abuse professionals, and criminal justice professionals. Eight questions are asked across the 9 sources of confrontation (see Table 1). Questions address the quantity and frequency of receiving confrontational statements, perceptions of the relationship with the confronter (general supportiveness, support for sobriety, and motivation for making the confrontational comment) and perception of the confrontational comment (accuracy, helpfulness, and emotional intensity).

Descriptive Findings and Exploratory Factor Analysis

The initial examination of the ADCS involved administering the instrument to a sample of 108 individuals entering residential recovery houses (Polcin et al., 2006). Findings indicated that large proportions of residents received confrontational comments. The median number of individuals confronting participants during the past month across all sources was reported to be 5.50. On average, they reported confrontation from 2.40 sources. Some sources of confrontation were quite common, with 60% reporting at least one confrontation from family members and 56% of those married reporting confrontation from their spouse. Examination of item means indicated that perceptions of relationships with confronters and perceptions of confrontational statements were generally positive (Polcin, et al., 2006). Most of the item means were between 4 and 5 on a 5-point Likert scale (5 indicating higher support, accuracy and helpfulness), regardless of the source of confrontation.

Exploratory factor analysis was conducted on a larger sample of 179 individuals to assess the factor structure of the ADCS within each source of confrontation and in a combined analysis that included all sources together (Polcin, Galloway, Bostrom & Greenfield, 2007). Principal components methods yielded a 2-factor solution for all analyses. The first was labeled “Internal Support” (IS) and the second was labeled “External Intensity” (EI). In the combined analyses across all sources four items loaded on IS, all of which addressed the internal perception of supportiveness/helpfulness of the confrontation (items 3, 4, 5, and 8 in Table 1). The other four items loaded on EI, all of which covered the quantity, frequency, accuracy and emotional tone of confrontation (items 1, 2, 6 and 7 in Table 1). This factor was labeled, “External Intensity,” because the items addressed amount or quality of the confrontation presented to the participant. Each of the factor based scales possessed acceptable measures of internal consistency: 0.80 for IS and 0.63 for EI using Cronbach's alpha. The two scales were highly correlated ($r=0.65$, $p<.001$), indicating the more the amount of confrontation increased the more it was experienced as supportive (Polcin, et al., 2007). When we looked at the factor structure within each source of confrontation separately

we saw remarkable consistency across sources. Six of the 8 sources for IS and EI had the same items loading on the scales. Other sources only varied by one item.

Confirmatory Factor Analysis and Test-Retest

To validate the factor structure of the ADCS we then conducted confirmatory factor analysis on the full baseline dataset of 323 individuals entering residential recovery houses and found comparative fit indices for each source of confrontation that varied from 0.80 (resident peers) to 0.98 (friends). However, the overall fit for all sources combined was at a level generally characterized as acceptable, 0.90 (Polcin, Bond, Galloway, Greenfield & Korcha, in press). Thus, there appeared to be consistency in terms of how confrontation operated across sources.

There was some degree of inconsistency in test-retest analysis. Correlations ranged from 0.43 (substance abuse professionals) to 0.99 (co-workers). Other than substance abuse professionals, all sources of confrontation had test-retest correlations above 0.60. Thus, there may be something unique about confrontation from substance abuse professionals that leads to less consistent perceptions of it relative to other sources. See the paper by Polcin et al (in press) for a full discussion of this issue.

Construct Validity

To establish additional evidence of construct validity we examined factors that were associated with ADCS scales at baseline. As expected, we found that individuals with more serious problems received more confrontation and found confrontation more helpful and supportive than individuals who did not receive confrontation (Polcin, in press a). Significant associations were found between ADCS scales and Addiction Severity Index measures (drug and alcohol) and psychiatric severity (Brief Symptom Inventory). In a multivariate analysis we examined a measure of costs associated with abstaining from substance use (i.e., Cunningham, et al., 1997) and found it was a strong predictor of IS. Individuals who thought abstinence from substances would be difficult and present many challenges found confrontation particularly supportive. We also found that a measure of "Peak Density," the maximum number of days of substance use per month over the previous 6 months, predicted IS.

Most of our data to date on the ADCS consists of baseline measures. However, we did conduct some preliminary analyses on 69 participants at 6-month follow up and found the EI scale, which includes the amount of confrontation received, declined significantly (Polcin & Greenfield, 2006). However, IS did not decline, indicating that the confrontation that was received continued to be experienced as supportive.

Purpose

The baseline and preliminary 6-month findings formed the basis for the hypotheses tested here, which included baseline, 6-month, and 12-month data. We hypothesized that the factor structure would be maintained across time points but that the EI would decline and while IS would remain high. We also expected that higher problem severity and perceived costs would correlate with higher scores on both ADCS scales across time points. Our baseline findings revealed particularly strong differences between individuals who received confrontation versus those who did not and we hypothesized that these differences would be maintained across follow up time points.

Methods

Sample

The ADCS was administered to 323 individuals entering 21 alcohol and drug free residential recovery houses operated by 3 agencies in Northern California. All recovery homes used a social model philosophy of recovery that emphasized peer support and the 12-step recovery principles of Alcoholics and Narcotics Anonymous. A more complete description of the characteristics of the recovery houses and the philosophy of recovery used can be found in Polcin (in press b) and Polcin and Henderson (2008). Sample characteristics included Male 80%, White 67%, African American 19%, and average age 36.5 (9.7).

Measures

Six month measure of alcohol and drug use—This measure was taken from Gerstein et al. (1994) and is termed “Peak Density”—the number of days the participant used any substance during the month of highest use over the past 6 months (coded 1-31 days). In previous analyses of the data used here we found significant longitudinal improvement on this measure (Polcin & Henderson, 2008).

Severity of problems—The Addiction Severity Index (ASI) (McLellan et al., 1992) was used to assess a variety of problem areas including drug, alcohol, medical, legal, employment, and family/social relationships. The ASI measures a 30 day time period and provides composite scores between 0 and 1 for each problem area. Scales were dichotomized for the analyses used here. The ASI is used widely and has adequate psychometric properties (Stoffelmayr, Mavis & Kasim., 1994). Although the instrument includes a measure of psychiatric severity as well, we opted to use a more comprehensive measure for psychiatric symptoms which is described below.

Psychiatric symptoms—To assess current psychiatric severity we used the Brief Symptom Inventory (BSI) (Derogatis, 1993). This 53-item measure assesses severity of psychiatric symptoms on nine clinical scales as well as three global indices. Items are rated on a 5-point scale and ask about symptoms over the past 7 days. We used the Global Severity Index (GSI) as an overall measure of psychiatric severity. The GSI has a test-retest reliability of 0.90. Construct validity of the clinical scales has been supported by significant correlations with the MMPI and SCL-R-90 (Derogatis, 1993).

Costs and Benefits of Abstinence—The Alcohol and Drug Consequences Questionnaire (ADCQ) (Cunningham, Sobell, Gavin, Sobell & Breslin, 1997) was used to assess costs or challenges associated with sobriety as well as benefits. The ADCQ contains two subscales, one measuring the perceived costs of changing one's substance use and one measuring the perceived benefits. For the analyses reported here we used a modification of the subscales. We asked study participants about the costs and benefits of stopping or cutting down on their substance use *or* the costs of maintaining their current sobriety. Our rationale was the vast majority of study participants were not currently using substances and many had been abstinent from substances for substantial periods of time. For example, at the baseline interview a majority (67%) indicated no use of alcohol and 60% indicated no days of drug use over the past 30 days. When we asked respondents which characterization fit them better, costs of cutting down/stopping substance use or costs of maintaining sobriety, the vast majority choose the latter. We assessed internal consistency of the modified scale using Cronbach's alpha on the baseline sample and found reliability to be similar to that used in the unmodified scale. Cunningham et al. (1997) found an alpha of 0.92 in their use of the unmodified version of the Costs of Change scale and we found an alphas ranging from 0.77 to 0.96 with our modifications. Because all of the recovery programs emphasized

abstinence, we describe the ADCQ in terms of costs and benefits of abstinence throughout the paper.

Confrontation—The ADCS was used to measure confrontation received by recovery home residents. See Table 1 for a list of the specific questions asked for each potential source of confrontation.

Procedures

Study participants were interviewed within one week of entering the houses and again at 6 and 12 month follow up. At 6 months 75% (n=242) of the sample completed follow up interviews and at 12 months 72% (n=234) completed interviews. When we compared baseline demographics and outcome measures (ASI scales, psychiatric symptoms, and substance use) of those successfully followed up versus not we found no significant differences. Participation was voluntary and all residents entering the study signed an informed consent document that was approved by the Public Health Institute Institutional Review Board. Study participants were informed that all information divulged was confidential and a federal “Certificate of Confidentiality” was obtained to further protect confidentiality. The full battery of instruments took approximately ninety minutes to complete and participants were paid \$30 for the baseline interview and \$50 for the follow up interviews.

Analysis Plan

Factor analysis procedures for 6 and 12 month time points followed the same procedure previously used to assess the factor structure at baseline (Polcin, et al., in press). If a respondent indicated they received no confrontational comments from any sources they were not entered into the analysis. The rationale was that scale items measured the intensity and supportiveness of confrontational statements and therefore requires that confrontational statements were made to the respondent. The first item in the scale, “number of persons confronting” was not included in the factor analysis because it was not coded in a consistent manner across sources. For spouse it was coded as a dichotomous variable (0 or 1), whereas for other sources it was coded as a count (the number of individuals confronting).

For each time point (baseline, 6 months and 12 months) we conducted separate factor analyses across the 9 different sources of confrontation (e.g. family, friend, criminal justice system, peers, etc.). For each of the 7 items, a given source was included in the average for a given respondent only if the respondent reported confrontation from that source. All factors had eigenvalues > 1 and a loading of 0.40 was used as the cutoff for items. Principal Axis factoring for estimation was used and orthogonal factor rotations were conducted. We explored various rotation methods including orthogonal and oblique. We ultimately selected the findings from the orthogonal analysis because it offered the clearest solution. In addition, our previous factor analyses used orthogonal procedures as well. In addition to assessing the factor structure of the ADCS within each time point, we conducted a factor analysis of all sources across all time points. This enabled us to compare how the overall structure across time compared to each time point.

In addition to assessing the factor structure of the ADCS over time we wanted to assess how confrontation correlated with other study variables of interest, particularly those that might support construct validity. We therefore assessed correlations between confrontation scales and measures of motivation (ADCQ) and problem severity (ASI and BSI).

Results

Table 1 shows mean values for each item by source of confrontation at each time point. Examining the number of participants receiving confrontation from each source and from all sources combined (overall column) shows that the amount of confrontation that participants received declined over time. Across all sources, the proportions reporting that they received at least one confrontational statement declined 45% between baseline and 6 months and 16% between 6 and 12 months. Every source of confrontation except the workplace showed a substantial decline between baseline and 6 months and all sources except the workplace and healthcare continued to decline at 12 months. In addition, participants who reported receiving at least one confrontational statement at 6 months on average reported confrontation from a fewer number of persons than participants who reported receiving confrontation at baseline. Similarly, those who reported receiving confrontational statements at 6 months reported on average receiving them at a lower frequency than those who received confrontation at baseline.

On other ADCS items we found more consistency across time. Overall means for items 3-8, which assessed each item across all sources of confrontation, varied by no more than two-tenths of a point across all 3 time points. Means were high, indicating participants reported generally positive experiences of confrontation (e.g. supportive, accurate, and helpful). Cronbach's alphas assessing the internal consistency of items within sources were good. Only 2 of the 27 alphas within sources at different time points were below 0.60. Overall alphas that included responses across sources ranged from 0.76 at baseline to 0.70 at 6 months.

Factor Structure over Time

In addition to describing how ADCS items varied over time, we were interested in testing whether the factor structure was maintained at 6- and 12-month follow-up. Table 2 shows the results of factor analysis at each time point, including the factor loadings, Eigen values, and percent of variance for each factor. Item 1, number of persons confronting, was not included because it was dichotomous for spouse and continuous for other sources.

Item loadings across time points were generally similar to each other and consistent with our previous psychometric work (Polcin et al, 2007, Polcin et al, in press). At each time point we found the same two factor solution: IS (factor 1) and EI (factor 2). As Table 2 indicates, items 3, 4, and 5 all loaded on IS at all three time points and items 2 and 7 loaded on EI at all time points. The label "internal support" characterizes items 3, 4, and 5 because these items tap into subjective (internal) assessments about the supportiveness of confronters and their desire to help. The label "external intensity" was used to describe the second factor because the items that loaded on it addressed perceptions about the intensity of confronters' behaviors rather than perceptions about supportiveness or intent to help. Item 2 addressed the frequency of receiving confrontation and item 7 addressed the emotional tone of the confrontational comment. Thus, these items addressed participants' perceptions about external characteristics of confrontational interactions. At all three time points the amount of variance accounted for by both factors was > 60%.

There were a total of 42 loadings over the 3 time points. Of these 42 there were only 3 instances of cross loading, where an item loaded on both factors at the same or different time points. Item 5 (motivation to help) loaded equally on both factors at baseline (loading = 0.47), and items 6 (accuracy) and 8 (helpfulness) loaded on External Intensity at baseline but Internal support at follow up time points. We expected item 5 to load fairly equally on the 2 factors at baseline because that was consistent with our previous analyses (Polcin et al., in press.) The cross loadings of Items 6 and 8 do reflect some differences in factor structure

between baseline and follow up time point. Thus, at baseline there is a way these questions are experienced differently than at subsequent time points. We discuss potential reasons why they load on different factors at different time points in the Discussion section below.

We also conducted an overall factor analysis that examined the factor structure of the ADCS combining data from baseline, 6 months and 12 months. Consistent with the factor analyses conducted within each time point, items 3 (factor loading= 0.81), 4 (factor loading= 0.87), and 5 (factor loading= 0.58) loaded on IS and items 2 (factor loading= 0.42) and 7 (factor loading= 0.68) loaded on EI. The two items that varied in their loadings over time, items 6 and 8, were split in their loadings on the overall analysis across time points. Item 6 loaded on IS (factor loading= 0.40) and item 8 loaded on (EI factor loading= 0.55). Although each item loaded on the factor at or above the 0.40 cutoff, these items also loaded on the other factor at >0.30, which reflects their relative influence on both factors at different time points.

Composite scores for each scale at each time point were developed by calculating means for questions loading on each of the factors in the overall factor analysis. Table 3 shows composite scores for each factor at each time point. To assess whether confrontation was experienced as more or less intense or supportive over time we use paired t-tests to compare baseline means with 6 and 12 month follow up. Table 3 shows that EI decreased significantly from baseline to 6 months and remained low at 12 months. Thus, participants perceived confrontational comments to occur less frequently from most sources and to be slightly less emotional and helpful when they did occur. We found very different results for the IS scale. No significant differences were found between the supportiveness of confrontation at baseline and follow up time points. Thus, confrontational comments were experienced as supportive regardless of when they occurred.

Correlates of Confrontation Scales

A common method of establishing construct validity is to conduct bivariate correlations between new scales and other measures that are conceptually similar (e.g., Derogatis, 1993). To establish construct validity for ADCS at each of the time points we examined how the confrontation scales correlated with a variety of other study variables. All study participants were entered into these analyses. Individuals who indicated they did not receive any confrontational comments were scored 0 (no confrontation) on both ADCS scales. We reasoned that individuals with more severe problems would be at higher risk for negative consequences and thus receive more warnings from others about potential harm. Table 4 shows that we found significant correlations in expected directions, although the strength of the associations were relatively modest. Consistent with our earlier work on validity, we found significant correlations between ADCS scales and problem severity (ASI Alcohol, ASI Drug, BSI/GSI, and Peak Density) at all time points (See Table 4).

In addition to severity, ADCS scales correlated with our measure of motivation, the Alcohol and Drug Consequences Questionnaire (ADCQ). The perceived costs scale on the ADCQ assessed the challenges or costs that would need to be faced if the respondent cut down/ stopped substance use or maintained abstinence. As Table 4 indicates, this scale correlated with both ADCS scales at all time points. Correlations ranged from 0.20 to 0.29. The perceived benefits scale also correlated with ADCS scales over time, although somewhat less than the costs scale and only at the follow up time points (6 and 12 months). Significant correlations between benefits and EI were found at 6 and 12 months and a significant correlation with IS was found at 6 months. Correlations were modest and ranged from 0.14 to 0.19.

To a large degree, the significant correlations found might be the result of differences between individuals who did and did not receive confrontation. Therefore, we used ANOVA

tests to assess whether participants who did and did not receive confrontation at each time point differed on study variables. We found large, significant mean differences (see Table 5). The pattern was the same; those receiving confrontation showed greater problem severity than those with no confrontation. In addition, we saw similar differences on the ADCQ scales measuring motivation. At all three time points perceived costs of sobriety were significantly higher for those who received confrontation. At 6 months, perceived benefits were higher among those who received confrontation.

When we looked only at individuals who received confrontation (excluding those with no confrontation) we saw a different picture. Among these individuals, problem severity did not correlate with ADCS scales. Rather, the ADCQ scale measuring benefits of sobriety correlated with ADCS scales across all time points. Perceived benefits correlated most strongly with EI: 0.37 at baseline ($p<.001$), 0.29 at 6 months ($p<.01$), and 0.22 at 12 months ($p<.05$). Significant correlations between perceived benefits and IS were found at baseline ($r=0.22$, $p<.001$) and 6 months ($r=0.29$, $p<.01$). Although this relationship was not significant at 12 months it was a positive association nonetheless ($r=0.15$).

Discussion

Our previous research using the ADCS has shown that confrontation at baseline tends to be experienced as supportive, helpful, and accurate (Polcin, in press a; Polcin & Greenfield, 2006). Findings here show that confrontation continues to be experienced in a similar manner at 6 and 12 month follow up, although the amount of confrontation received decreases dramatically. The decrease in receipt of confrontation at follow up time points is not surprising because receipt of pressure from personal relationships (e.g., family and friends) and institutions (e.g., the criminal justice system) is extremely common before entering treatment (Marlowe, et al., 2001). In addition, at 6 and 12 month follow-up we found significant decreases in multiple problem areas including alcohol and drug use (Polcin, Lapp, Korcha & Galloway, 2008). These individuals may be less likely to experience confrontation because they have fewer problems. Individuals who relapsed at 6 or 12 months may not receive confrontational statements because they may have migrated into social support systems that encouraged rather than discouraged alcohol and drug use.

Some sources of confrontation were nearly absent at follow up time points because of the changing circumstances of study participants. For example, about half of the participants were no longer residing in the SLHs at 6 months and a clear majority had left at 12 months. Thus, relative to baseline few residents at follow up time points had the potential to receive confrontation from SLH peers. Because involvement in other services, such as formal alcohol, drug and mental health treatment was also much more common at or shortly before the baseline interview, the likelihood of receiving a confrontational comment from service providers was higher than at follow up time points. However, we also noted significant declines in confrontation from family and friends, which may be due to decreasing problems for those who are abstinent or, for those who have resumed substance use, changes in social networks that encourage substance use.

The factor structure of the ADCS at baseline and subsequent time points generally supported our previous 2-factor solution: Internal Support and External Intensity. Most items loaded on the same factors. However, one item loaded equally on both factors at baseline (item 5, motivation to help). This was an expected finding because it was consistent with our previous psychometric work on factor structure (Polcin et al., in press). Two items switched from the IS factor to the EI factor at 6 and 12 months: item 6, which addresses the accuracy of confrontational comments and item 8, which addresses the helpfulness of the confrontation. At baseline, these questions seem to be experienced in terms of their

intensity; the amount of accuracy and helpfulness the confrontational comment provides. Thus, the interpretation of these comments at baseline may be based upon their perceived impact separate from relationship context with the confronter. This changes at 6 and 12 months, where confrontations appear to be experienced more often within an interpersonal context. At these time points the characteristics of the comments themselves may be less important than their implications for the relationship with the confronter.

There may be a variety of reasons why individuals perceived accuracy and helpfulness of confrontational comments differently at different time points. One interpretation may be that at entry into recovery homes their focus was on what they needed to do to succeed in recovery. So accuracy and helpfulness of confrontation may have been thought about in terms of impact on the goal of recovery. At follow up time points most residents settled into a pattern of substance use or abstinence and they might not have had an explicit goal or desire for change at that point. In the absence of an explicit goal, accuracy and helpfulness of confrontational comments might have been thought about in more terms what they reflected about the relationship, such as the level of support they provided.

It was striking that IS was consistently high across sources and time points. It appears that regardless of who confronts and when the confrontation takes place, on average it is experienced as supportive.

Problem Severity and Motivation

Correlates of the ADCS scales provided evidence of construct validity. For example, we expected and found that both ADCS scales correlated with problem severity (ASI Alcohol, ASI Drug, psychiatric symptoms on the Global Severity Index, and Peak Density) across all time points. Individuals with more severe problems may have received more confrontations from friends, family and peers out of care and concern for them. Confrontation may have been an attempt by these groups to motivate the substance user to take action to address what they perceived to be serious problems. Individuals with higher problem severity also received more confrontation from professional groups (criminal justice, mental health, and substance abuse treatment). This finding was expected because a previous analysis showed that those with high problem severity had more frequent contact with a variety of professionals (Polcin & Korcha, 2006). Thus, there were more interactions with these professional groups and therefore more opportunities to receive confrontation.

In addition to receiving more confrontational comments, participants with higher problem severity found confrontation more supportive. One reason might have been that participants with high severity felt that the confrontations they received were accurate (see means for item 6 in Table 1). The “bad things” that they were being confronted about may have already begun to occur or at least seemed to be a reasonable possibility. Thus, they might have known that the confrontational comments were not based on hostile intent of the confronter.

Both scales on the ADCQ (costs and benefits) correlated with ADCS scales as hypothesized. The more individuals thought it would be difficult to maintain their sobriety (i.e., costs), the more they tended to receive confrontation. In addition, high perceived costs of sobriety were also associated with confrontation being experienced as supportive. This finding replicates our earlier baseline findings (Polcin, in press a). There we concluded confrontation might be experienced as supportive in part because individuals were entering a recovery program, yet they felt achieving and maintaining abstinence would be difficult for them because of the challenges they faced in sobriety. Concerns about maintaining sobriety might have been communicated to others in the person's social network, eliciting confrontational comments about the potential harm of substance use. The confronter may have attempted to support

recovery by reminding the person about the costs associated with using substances. The confrontational interaction may therefore serve to counteract the costs individuals associate with maintaining sobriety. Results here add to this finding by showing that individuals who view abstinence as costly continue to receive more confrontation than others at 6 and 12 months and they continue to experience such comments as supportive.

The perceived benefits of sobriety were more strongly associated with confrontation at follow up time points; baseline correlations were not significant. At baseline there were very strong and widespread beliefs that abstinence from substances would result in benefits. It is understandable that as individuals were choosing to enter the residential setting to help them with their addiction problems they would be optimistic about the potential benefits of sobriety. Apparently, these beliefs existed whether or not residents were receiving confrontation. However, these dynamics appear to change at follow up time points when there somewhat lower mean values and more variance in scores on perceived benefits. Here, perceived benefits of sobriety did correlate with confrontation. One reason may have been that confrontational comments may have not only reminded them of negative things that might result from substance use, but it also might have helped them remember the benefits that they had experienced as a result of abstinence.

It was interesting that the problem severity and perceived costs of sobriety variables correlated with ADCS scales only when we included individuals who received no confrontation (entered as 0's in the analysis). When we made direct comparisons between those who did and did not receive confrontation we saw large, significant differences on problem severity and consequences variables at all time points. These findings replicate our earlier baseline findings (i.e., Polcin, in press a). Thus, problem severity and perceived costs of sobriety findings primarily depict differences between those who did and did not receive confrontation.

When we examined only those individuals who received at least one confrontational comment we found different correlations. Within this group, problem severity and perceived costs of sobriety were not associated with ADCS scales. Once participants received a confrontational comment, higher problem severity was not associated with receiving more confrontation or experiencing it as more supportive. Rather, a significant correlation was found between perceived benefits of abstinence and both ADCS scales at all time points. As the intensity and supportiveness of confrontation increased, participants reported more perceived benefits of sobriety.

Our study did not tap specific comments about the potential benefits of sobriety that substance users receive. However, it would not be surprising if these types of comments were often made by the same individuals making confrontational comments. Confronters might try to influence substance users by making comments about the potential harm of substance use but also try to entice them into trying sobriety by pointing out potential benefits. It would be interesting to study whether substance users who report receiving high confrontation also report receiving specific comments about the benefits of abstinence. Results suggest that comments about the benefits of sobriety might have the strongest impact among individuals who have already received confrontation about the potential harm of substance use.

Implications for Practitioners and Policymakers

Treatment programs and other service providers who encounter substance dependent clients are increasingly being encouraged to eschew confrontational interactions. Policymakers who develop interventions and services point out a number of studies show confrontation can be ineffective, if not harmful (e.g. Miller et al, 1993). Although the use of confrontation has

been increasingly viewed as counterproductive, practitioners and policy makers are often unclear about what exactly is being proscribed because confrontation has been ill defined. Our findings show that when confrontation was defined as warnings about potential harm that might result from substance use it was experienced as supportive and helpful. While previous analyses had shown this finding at baseline (i.e. Polcin, in press a), this study showed that it persisted across 6 and 12 month follow up.

Our finding that confrontation was experienced as supportive applied to individuals entering recovery houses as well as those who had left and were residing in the general population. Thus, practitioners who are working with individuals in recovery programs as well as professionals who have contact with substance users in a variety of settings should consider integrating this type of confrontation into their work. In a separate publication (i.e. Polcin, 2006) we describe more extensively how confrontational interventions can be integrated into treatment with substance abusers as well as how to avoid counterproductive confrontation.

When confrontation is proscribed by policy makers and practitioners it would be useful to specify specific behaviors. For example, proscribed confrontations might include argumentation, an aggressive tone, or personal attacks.

4.3 Limitations and Further Research

A number of limitations bear noting. First, we recruited individuals entering recovery homes and results might vary when individuals are recruited in other settings or in the general population. The impact of confrontation particularly needs to be studied among a general population sample that has no history of treatment.

Second, although we know substance users tended to report that confrontational comments were accurate, helpful and supportive at all data time points, predictive validity studies are needed to demonstrate how confrontation relates to subsequent behavioral change. This work will require a number of design considerations that were not implemented here. First, there will need to be outcome measures that are proximal to receipt of confrontation, ideally measuring confrontation over the past month and then outcome behaviors over the next month or even the next week. Second, a variety of covariates will need to be controlled in the analysis because factors that elicit confrontation might also make individuals more vulnerable to relapse. Failure to control for these factors could result in a false positive relationship between confrontation and poor outcome. Examples include factors such as psychiatric severity, alcohol and drug consumption, drug craving, life crises, impulsivity, poor judgment, cognitive deficits and a host of other variables.

Conclusion

Confrontation in addiction treatment has recently been increasingly proscribed. However, what it means to confront has been poorly conceptualized and understudied. Rather than defining confrontation as argumentation or aggressive attacks, which is common in the addiction literature, the Alcohol and Drug Confrontation Scale (ADCS) defines confrontation as warnings about potential harm that might result from substance use. It assesses how intense and supportive this construct of confrontation is experienced. This paper has reviewed the history of the development of this instrument including the initial descriptive findings, exploratory and confirmatory factor analysis, construct validity, and test-retest analysis. To date, nearly all of the psychometric analyses have been on baseline data.

This paper is the first to examine how the factor structure and correlates of confrontation vary at 6 and 12 month follow-up. We used follow up data from our original baseline

sample (N=323) individuals entering sober living houses. Like our baseline results, we found that confrontation was most commonly received by individuals with more severe alcohol, drug, psychiatric and related problems at both follow up time points. Also like the baseline results, the more participants felt that succeeding at abstinence would be difficult (high perceived costs of sobriety) the more they received confrontational comments.

Another consistency with our baseline findings was that confrontation was generally experienced as supportive. This was particularly the case among individuals with more severe problems and those who felt sobriety would be challenging (perceived high costs). We found the amount of confrontation that individuals experienced declined between baseline and 6 month but it continued to be experienced as supportive. Among those who received at least one confrontational comment, intensity and supportiveness of confrontation was associated with higher perceived benefits of abstinence.

While the factor structure of the ADCS remained largely intact at the follow up time points, we did find 2 loadings that differed from the baseline factor analysis. We hypothesized that the way residents experienced these questions (helpfulness and accuracy of confrontation) might have changed over time. At baseline they might have been experienced in terms of their potential impact on recovery and at follow up they may be experienced more in terms of their relationship with the confronter.

Future studies on the ADCS should focus on testing it with other populations, particularly general population samples with no history of treatment. Studies are also needed that establish predictive validity and show how confrontation is associated with outcome. A variety of issues would need to be considered in undertaking such a project, including analysis of multiple covariates and using measures that are proximal to receiving confrontation.

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	Mental Health Professionals			Substance Abuse Professionals			Criminal Justice Professionals			Overall		
	Base n=18	6-Month n=30	12-Month n=16	Base n=14	6-Month n=110	12-Month n=32	Base n=60	6-Month n=21	12-Month n=17	Base n=256	6-month n=141	12-month n=118
Base n=16	1.6 (1.2)	2.0 (1.5)	1.7 (1.3)	1.5 (1.3)	3.1 (2.3)	2.1 (1.4)	1.8 (1.6)	1.1 (0.4)	1.0 (0.0)	3.1 (3.0)	2.0 (1.5)	1.9 (1.8)
12-month n=16	1.6 (1.2)	2.0 (1.5)	1.7 (1.3)	1.5 (1.3)	3.1 (2.3)	2.1 (1.4)	1.8 (1.6)	1.1 (0.4)	1.0 (0.0)	3.1 (3.0)	2.0 (1.5)	1.9 (1.8)
12-month n=16	2.1 (1.6)	3.0 (1.7)	2.3 (1.5)	2.4 (1.4)	3.3 (1.5)	3.0 (1.3)	2.2 (1.4)	2.0 (1.3)	1.7 (1.3)	3.0 (1.1)	2.6 (1.1)	2.7 (1.3)
12-month n=16	4.4 (0.8)	4.3 (0.8)	4.2 (1.2)	4.3 (1.1)	4.6 (0.6)	4.5 (1.0)	3.9 (1.2)	3.9 (1.5)	3.9 (1.2)	4.4 (0.8)	4.4 (0.8)	4.5 (0.7)
12-month n=16	4.4 (0.8)	4.1 (1.0)	4.2 (1.1)	4.0 (1.4)	4.3 (1.0)	4.2 (1.0)	3.8 (1.1)	3.6 (1.4)	3.5 (1.1)	4.3 (0.8)	4.3 (0.8)	4.4 (0.8)
12-month n=16	4.6 (0.6)	4.0 (1.2)	4.4 (0.9)	4.4 (0.8)	4.3 (1.0)	4.2 (1.1)	3.7 (1.3)	4.1 (0.9)	3.4 (1.3)	4.2 (0.8)	4.3 (0.9)	4.3 (0.9)
12-month n=16	4.4 (1.1)	4.4 (0.9)	4.4 (1.1)	4.6 (1.1)	4.5 (0.8)	4.3 (1.1)	4.4 (1.0)	4.7 (0.7)	4.7 (0.7)	4.3 (0.8)	4.2 (1.0)	4.3 (1.0)
12-month n=16	2.4 (1.3)	2.6 (1.5)	2.5 (1.3)	2.0 (1.3)	3.3 (1.3)	2.8 (1.2)	2.6 (1.5)	1.8 (1.0)	2.7 (1.2)	3.3 (1.0)	3.1 (1.0)	3.1 (1.0)
12-month n=16	3.6 (1.4)	3.9 (1.1)	4.0 (1.2)	3.4 (1.3)	4.3 (0.9)	4.1 (0.9)	4.0 (1.2)	3.9 (1.4)	3.6 (1.5)	4.0 (0.8)	3.9 (1.0)	3.8 (1.0)
12-month n=16	.54	.75	.72	.83	.77	.81	.81	.71	.77	.76	.70	.72

Table 2

Confrontation Factor Loadings at each Follow-Up

	Internal Support			External Intensity		
	BASELINE (N=256)	6-MONTH (N=141)	12-MONTH (N=118)	BASELINE (N=256)	6-MONTH (N=141)	12-MONTH (N=118)
How often did (source) say bad things would happen if you didn't make changes?	.03	-.04	-.06	.41	.41	.71
How supportive of your sobriety is (source) ?	.84	.73	.79	.12	.23	.00
Overall, how supportive is (source)?	.84	.81	.83	.20	.27	.15
How much do you think (source) were trying to help you ?	.47	.70	.76	.47	-.12	.17
How accurate do you believe (source) statements to be ?	.25	.63	.51	.46	-.12	.07
How emotional were (source)?	.13	.12	.34	.68	.56	.56
How helpful was (source) to your recovery ?	.22	.63	.48	.61	.07	.06
Eigen Value	2.9	3.0	3.1	1.3	1.3	1.3
% Variance	42.1	43	44	17.9	18	18

Table 3

Mean scores for ADCS scales (SD)

	Baseline (n=256)	6-month (n=141)	12-month (n=118)
Internal Support	4.29 (0.66)	4.32 (0.73)	4.41 (0.71)
External Intensity	3.66 (0.64)	3.44*** (0.63)	3.46 (0.66)

Note: Persons with no confrontation are excluded

p<.001 baseline and 6-month comparison for External Intensity, paired t-test

Table 4

Correlation Matrix for ADCS Scales and Study Variables

Internal Support	Baseline (n=323)	6-month (n=242)	12-month (n=234)
ASI Alcohol	.14 [*]	.17 [*]	.21 ^{**}
ASI Drug	.16 ^{**}	.13 [*]	.22 ^{**}
GSI	.13 [*]	.23 ^{***}	.26 ^{***}
ADCQ Costs	.25 ^{***}	.21 ^{**}	.28 ^{***}
ADCQ Benefits	.03	.19 ^{**}	.12
Peak Density	.15 ^{**}	.17 ^{**}	.23 ^{***}
<i>External Intensity</i>			
ASI Alcohol	.16 ^{**}	.21 ^{**}	.22 ^{**}
ASI Drug	.17 ^{**}	.17 ^{**}	.23 ^{***}
GSI	.18 ^{**}	.26 ^{***}	.28 ^{***}
ADCQ Costs	.23 ^{***}	.20 ^{**}	.29 ^{***}
ADCQ Benefits	.09	.19 ^{**}	.14 [*]
Peak Density	.16 ^{**}	.18 ^{**}	.24 ^{***}

Note: Participants with no confrontation coded 0

*
p<.05**
p<.01***
p<.001

Table 5

Mean severity for persons with and without confrontation

	Baseline Confrontation Mean (SD)		6-month Confrontation Mean (SD)		12-month Confrontation Mean (SD)	
	None (n=67)	1+ source (n=256)	None (n=101)	1+ source (n=141)	None (n=117)	1+ source (n=118)
ASI Alcohol	0.07 (0.18)	0.18 (0.28)**	0.06 (0.12)	0.12 (0.22)*	0.05 (0.12)	0.13 (0.20)***
ASI Drug	0.04 (0.07)	0.09 (0.12)***	0.03 (0.07)	0.06 (0.10)*	0.04 (0.08)	0.07 (0.10)**
GSI	0.57 (0.55)	0.89 (0.78)**	0.49 (0.52)	0.83 (0.69)***	0.49 (0.56)	0.86 (0.73)***
ADCQ Costs	0.54 (0.68)	1.26 (1.12)***	0.62 (0.80)	1.06 (1.06)***	0.54 (0.81)	1.14 (1.08)***
ADCQ Benefits	4.3 (0.72)	4.3 (0.77)	3.8 (1.27)	4.1 (1.10)*	3.97 (1.23)	4.20 (0.92)
Peak Density	14.9 (13.54)	20.5 (12.30)**	6.40 (11.04)	10.77 (12.38)**	5.59 (10.83)	11.37 (12.55)***

Note: Analysis of variance F tests compared none versus 1+ within each time point

* p<.05

** p<.01

*** p<.001