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ABSTRACT

This study was conducted to develop a scale that assesses perceptions of self-efficacy in potentially stressful situations for chemically dependent adolescents. Adolescent subjects (N=100) currently receiving treatment for chemical dependency were given a 20-situation questionnaire, the Adolescent Self-Efficacy Scale (ASES). Students were requested to review the 20 situations and respond on a scale of 1 to 10 whether they would feel most or least confident in their ability to resist drug use or abuse. A factor analysis was employed to identify and summarize possible interrelationships among the individual variables; this yielded three factors: (1) emotional/interpersonal; (2) social/recreational; and (3) grief/loss. In Factors 1 and 3, the participants viewed their drug use as a response to the stress of conflict and loss resolution. Factor 2 seemed to reflect a need to enhance pleasure and enjoyment of events through the use of drugs. These findings suggest that substance abuse among adolescent populations often results from situational stressors. Implications for future study and application of self-efficacy concepts to treatment are considered, and references are included. (TE)

A Self-Efficacy Scale for Chemical Dependency in Adolescence

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Running Head: A SELF-EFFICACY SCALE FOR ADOLESCENTS

A Self-Efficacy Scale for Chemical Dependency in Adolescence

Summary. This study was conducted to develop a scale that assesses perceptions of self-efficacy in potentially stressful situations for chemically dependent adolescents. A factor analysis yielded three factors: Emotional/Intrapersonal; Social/Recreational; and Grief/Loss. Implications for future studies and application to treatment is considered.

The National Institute of Drug Abuse (NIDA) (1986) reported that approximately 5% of high school seniors drink alcohol daily and that by the time of their senior years in high school 61% of the adolescent population has tried an illicit drug, and 45% percent has tried an illicit drug other than marijuana. Finally, the NIDA study found that 45% of the boys and 27% percent of the girls interviewed experienced periods of heavy drinking (five or more drinks in a row). With the increased interest on the prevention, early assessment and treatment of substance abuse among the young, it seems that assessment instruments sensitive to the developmental and psychological dynamics of adolescence are needed. In turn, this search for effective assessment instruments suggests the need for a systematic and coherent conceptual basis as a pint of departure.

Such a basis can be found in the work of Albert Bandura on self-efficacy (Bandura,1977,1988,1989; & Bandura & Cervone,1983). Self-efficacy theory is derived from social learning principles and attempts to measure the person's belief he/she can successfully perform a desired outcome particularly in the face of on-going stress. It was further conjectured that perceived self-efficacy determines whether a specific coping behavior will be initiated and maintained. In this manner self-efficacy can be thought of as mediating coping behavior for subsequent performance outcome.

The intent of this study is to attempts to develop an instrument designed to measure perceived self-efficacy of adolescents who were participating in inpatient and outpatient chemical dependency treatment programs. If self-efficacy is, indeed, a mediating mechanism between coping skills behaviors and performance outcomes in a specific situation, it would seem valuable to know more about situations and categories of situations for adolescents having abused substances. In addition, it was hoped that such a study would provide a continuing attempt to better provide a conceptual basis using self-efficacy theory to adolescent chemical dependency treatment.

Method

A total sample of 100 subjects participated in the study. All participants were at the time of the study currently receiving treatment either as an inpatient or outpatient client. A total of three separate treatment centers were utilized for the study. The demographic characteristics of the subjects are summarized on Table 1. Briefly, 75 were male and 25 subjects were female. This 3 to 1 ratio approximates actual patient male to female ratios across treatment centers. The subjects ages ranged from 12 to 17 years with a mean of 15.7 years. Eighty-nine Ss were caucasian with only five Native Americans, three Asian-American, two Afro-American and one Hispanic subject represented in the sample. More than two-thirds of the subjects were from suburban communities, while 23 were from urban areas and the remaining 8 from rural communities. Slightly less than one-half were from intact families (46) while the remaining 54 subjects were from families that had experienced divorce (34), separation (11) or the death of a parent (10).

Twenty-nine percent of the subjects had received at least some prior treatment and the remaining 71 percent were receiving chemical dependency treatment for the first time. All the participants were volunteers and had been in their current treatment for a total period of less than 21 days. Forty-one percent (41) of the subjects listed marijuana as their primary drug of choice, 11% (11) listed alcohol, 6% (6) listed cocaine, 2% (2) listed hallucinogens, 1% (1) amphetamines and 1% (1) opiates. The remaining 38% (38) were unable to limit their primary drug choice to one substance, and so as classified here as poly-drug users.

Insert Table I about here

Instruments

The Adolescent Self-Efficacy Scale (ASES) was developed for use in this research. This scale is directly based of the work of Albert Bandura (1977) with regard to self-efficacy as the cognitive mediating process in behavior change. In turn, the perceived ability to persist in the presence of continuing stress (self-efficacy percepts) not only mediates behavior and performance but is also induced and altered by the experience of mastery attained by effective performance. One additional note of interest to the understanding of self-efficacy is that an individual's perceived self-efficacy may vary, even considerably, from situation to situation. That is, perceptions of self-efficacy in one situation, perhaps at work, do not predict self-efficacious percepts in marital or social situations.

This particular scale (ASES) was modeled on a scale first developed by Condiotte and Lichenstein (1981). The scale was named the Pretreatment and Postreatment Confidence Questionnaire and attempted to assess the extent of self-efficacy in regard to smoking cessation. This scale was deemed a valuable model for departure as it dealt both with the area of addictions and self-efficacy perceptions.

The next step was to make this preliminary adaptation relevant to adolescent chemical abusers. To this end, the content was constructed to reflect the use and abuse of mind-altering drugs and to additionally reflect the "language" of adolescence. For this latter goal, situations were drawn from 36 adolescent volunteers. A total list of 80 situations was generated which was, in turn, rank ordered to provide "Most Stressful" to "Least Stressful". Further pre-test on an additional sample of adolescent volunteers and a final list the twenty most stressful situations was determined. These 20 items were than randomly placed in the scale labeled the Adolescent Self-Efficacy Scale (ASES).

Procedures

Testing Administration: The twenty-situation instrument (ASES) was administered to 100 adolescent subjects (75 males and 25 females). All subjects were given identical instructions. They were requested to review the twenty situations and respond on a scale of 1 to 10 (1 = most confident of resisting drug use or abuse and 10 = least confident of resisting drug use or abuse). All subjects had had between 7 and 21 days of treatment prior to the testing.

Data Analysis. A principal components factor analysis with varimax rotation was employed in order to identify and summarize possible interrelationships among the individual variables (items).

Results

A factor analysis was applied to the scores from the first testing administration. Only those loadings of .35 were included in the final factors. The three factors described below accounted for 65.5 % of the total variance in the sample.

Insert Table II about here

Factor I, Emotional/Intrapersonal, is comprised of a total of thirteen items ranging from .52 to .81. The thirteen items comprising this factor reflect more internalized and affectively oriented coping responses to drug-taking. Words and phrases such as "sad", "guilty", and "bummed out" all seem to speak to the current feeling or affective state of the adolescent. In turn, the items in this particular factor contain an element of coping or handling difficult or problematic interpersonal relations that has been largely internalized by the individual.

Factor II, Social/Recreational, is comprised of four items with correlations ranging from .62 to .84. All four items in this particular factor relate to feeling and specific situations in which adolescents typically use drugs to "celebrate", have a "good time" and when attending a "concert". In as much as this represents an attempt to heighten positive environmental responses, it seems to reflect a more social or recreational outlook toward drug use. In some respects this particular factor may best represent "normative" usage once legal drinking ages have been reached.

Factor III, Grief and Loss, is composed of three items all very sprecifically reflecting the loss of "someone close", death of someone close, or the loss of a "boyfriend/girlfriend". In this particular factor issues of loss, and perhaps specifically the strong emotions surrounding loss, are dealt with through the use of drugs. Drugs here, as with Factor I (Emotional/Intrapersonal) may represent active coping efforts in the face of stress.

The factor loadings and therefore the factors determined in this study are basically consistent with much previous research. Those researchers studying adolescent drug use (Marlatt and Gordon,1980; Reeves and Draper, 1984; Segal. et. al.,1984; Sandahl, 1984; Hawkins and Catalano, 1985; and Bauman, 1986) have all discovered similar concerns.

Discussion

A self-efficacy instrument (ASES) for use with adolescents in chemical dependency treatment was developed and administered to 100 adolescents in one inpatient and two outpatient treatment programs. A factor analysis yielded three factors; (1) Emotional/Intrapersonal, (2) Social/Recreational and (3) Grief/ Loss. The thirteen items contributing to Factor I require abilities to deal effectively with both external conflict ("After a fight with my parents") and internal conflicts ("When I don't feel good about myself"). Factors II and III are represented by four items ("celebrating", "feeling good") and three items (loss and death) repsectively.

In both Factor I and III it would seem that the adolescents studied here (clearly those with drug use concerns) view their drug usage as a response to the stress of conflict and loss resolution. When potentially overwhelmed with stress, adolescents may resort to drug use to provide a perceived respite and distance from the source of stress and the threat to self-esteem and self-confidence. Factor II, on the other hand, seems to reflect a need to enhance pleasure and enjoyment of events through the use of drugs.

It was the intent of this study to take the initial steps towards developing an effective means of assessing adolescent self-efficacy percepts with respect to situational stressors and drug abuse. It seems that substance abouse among adoelscent populations may often be the direct result of situational stressors. In a developmental perspective, substance abouse may serve to temporarily ward off undue stress and tension. This may make it difficult for adolescents to develop the necessary coping skills that increase their confidence when confronting stressful situations. In this way issues of self-efficacy and confidence can become, for the purposes of chemical dependency treatment highly concrete and situation specific.

Future investigations might take varying but complementary directions. First, it would be of interest to continue to develop this particular instrument. Are additional items or situations needed or desirable to expand the instrument? It is our belief that a brief,easily and quickly adminsistered (orally or in written form) test is most desirable especially when working with troubled adolescents. Of particular interest would be to attempt to measures changes in self-efficacy over the course of treatment. What differences, if any might appear over the course of treatment? One speculation might suggest that self-efficacy might decrease in the initial stage of treatment as the adolescent confronts issues of stress and drug abuse but increase prior to discharge as the opportunity to try out new coping abilities occurs. What post-treatment and longitudinal changes occur? That is, to what extent do natural environmental conditions, namely home and school, support or inhibit self-efficacy? Are there gender differences? Does early adolescence, with the emergence of formal operational thinking, differ from middle or late adolescence in regard to beliefs about persistance in the face of on-going stress.

These and other investigations could potentially develop the assessment and treatment potential of self-efficacy concepts. In this manner chemical dependency treatment for adolescents might take an important step closer to the continued integration of a more developmentally based model that can become reflective of the everyday stressful dilemmas that adolescents confront.

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TABLE 1

Background Characteristics of Subjects

Age (yr)	N	Drug Preference	N
13-14	17	Marijuana	41
15-16	61	Alcohol	11
17	22	Polydrug Use	38
		Other	10
Mean = 15.7			

Family Status	N	Gender	N
Intact	46	Male	75
Divorced	34	Female	25
Separated	11		
Parent(s) Deceased	10		

Racial/Ethnic	N	Area of Residence	N
Afro-American	2	Urban	23
Hispanic	1	Suburban	69
Native American	5	Rural	8
Asian-American	3		
Caucasian	89		

TABLE 2

Factor Matrix of Adolescent Self-Efficacy Scale

	Items	Factor I	Factor II	Factor III
20.	When I don't feel good about myself	81		
18.	When I'm sad	78		
8.	When I feel I don't count anymore	73		
15.	After a paprental argument	72		
19.	When I feel guilty	71		
1.	When I can't handle anything anymore	70		
7.	When I feel like no one cares	69		
9.	When I'm sick of everything	67		
13.	To forget my problems	64		
2.	When I'm bummed out	62		
5.	Help cope with things	62		
6.	When I'm frustrated	62		
10.	To hide my feelings	52		
3.	To feel good		84	
17.	To celebrate		73	
11.	To have a good time		73	
16.	At a concert		62	
4.	Lose someone really close			79
12.	Someone close dies			70
14.	Lose boyfriend/girlfriend			61

NOTE- Decimal points have been deleted