

What Type of Ego Are We Dealing With, Here? Ego Functions in a Group of Substance Abusers: A Metanalysis

Salwa E., Amany E., El Rakhawy M. and Nahed K.

Faculty of Medicine, Cairo University, Egypt.

Date received: 8/6/2009

Date accepted: 12/10/2009

Background: Sustainable recovery is the cornerstone of rehabilitation programs. The Ego is the agency recruited in this process: it is the ego that will work with the challenges, filter distractors, and resist falling back to old learned habits of dealing with stress, cues and new material. It is the choice for change: the volition to achieve recovery that renders recovery possible.

Objectives: To identify which of the 12 Ego Functions are most likely to be impaired in Substance Abusers.

Subjects & Methods: The Egyptian studies that attempted to assess Substance abusers from the perspective of Ego functions using Bellack's Clinical

Assessment of Ego Functions are being presented in this metanalysis. Searching for these studies was conducted by word of mouth, on a national database as well as through experts in the field.

Results: Weighted aggregate analysis showed that the most impaired ego functions among substance dependent patients are adaptive regression in service of ego (ARISE) and judgment.

Conclusion: The use of Ego function assessment is of paramount value for the purpose of management. Assessing them should be a routine measure in this very challenging population.

Keywords: Substance abuse, Substance dependence, Ego functions. Psycho dynamics, Psychopathology.

Abbreviations:

ARISE: adaptive regression in service of the Ego

EFA: Ego function Assessment

Egypt. J. Psychiatry, Jan 2010; 30(1): 39-45

INTRODUCTION

No single addictive personality (Addict) exists. People become addictive because specific etiological and constitutional factors contribute to their vulnerability to the addictive process. This process can be defined and diagnosed. It involved common inter/intrapersonal psychodynamics (Hatterer, 1982). The study of addiction as a human process begs for a depth psychology. We are convinced that psychoanalytic theory continues to be the most enabling and useful depth psychology at our disposal to understand the human mind and behavior, including addictive behavior. Psychoanalysis does not invalidate other psychological methods of understanding, but rather attempts to account more adequately for the complexities of human behavior in terms of dynamic, economic, structural, developmental and adaptational factors. We strongly support the notion that social and other factors notwithstanding, compulsive drug use and addiction in our society are indicative of psychological disturbance, which in the majority of instances, is profound. From the perspective of ego psychology, the person who becomes dependent on drugs loses the ability to navigate the world of internal stressors and external constraints using standard ego defenses the drug becomes his or her primary coping mode (Juni and Stack, 2005). Bellak and Sheehy, (1976) stated that ego function diagnosis of psychiatric patient is useful in planning and evaluating treatment and diagnosis. Blatt and Berman, (1990) identified three groups of addicts those primarily with impaired

interpersonal. relationships and affective liability, those primarily characterized by thought disorder and impaired ego functioning, and a group with diminished ideational and verbal activity. Their data indicate that there are several types of opiate addicts with different types of psychopathology who may require different approaches to management and treatment.

Ego functions assessment through Bellack's clinical assessment has been used in Schizophrenia research. Theoretical and clinical investigative work attempted to focus on the ego impairments of narcotic addicts, particularly in relation to problems of affect and drive defense, self-care and regulation and how those problems are related to failures in internalization; but still there is scanty of published data on those issues.

Current study is an attempt to use data reported by the national studies to answer the following questions:

- Do drug addicts manifest impairment in ego functions? And if yes,
- Which of the ego functions is more impaired than others?

METHOD

The following were the inclusion criteria of the studies:

1. Egyptian studies.

2. Population studied substance abusers.
3. Ego function assessment using Ego Function Assessment Scale (EFA) (Bellak, 1973).

Search for the studies was conducted through searching the local library databases, word of mouth and the Ain Shams collected database of National Theses and publications. Although the use of one of a software designed for metanalyses (e.g Revman) would be the standard practice to enter the results and elicit a forest plot, this was not done in this particular metanalysis. This is due to two main obstacles: **Firstly**: the raw data of one of the studies (Moussa, et al. 2004 and El-Askary, 2002) was not available, hence it was not possible to enter the data in any of the formats that such software require (Means or number of cases). The unavailability of raw data was not one of our exclusion criteria, hence the inclusion of study. **Secondly**: the scoring in the three studies was not uniform. Study (1) (El-Rasheedy, et al. 1992) used a ten point scale to assess intactness where the higher the score the better the performance. The same approach was used in Study (3) (Rakhawy, 2009) using a four point Likert scale. Study (2) Moussa, et al. (2004) and El-Askary, (2002) used a 100 point scale to assess impairment rather than intactness, so the higher the score the worse the performance. It is worth noting that all these studies departed from the original scoring method designated by Bellak, (1973).

Accordingly and in order to detour around this hurdle, reverse percentages were used.

While each of the studies addressed the Ego function profile of substance abusers from a different perspective, the three studies that were located all shared the common dimension: assessment of Ego functions in Substance abusers using EFA. The characteristics of each study and its related question are shown in (Table 1). In addition, due to the different type of studies, the weight of each study is also shown depending on its type and whether controls were included or not.

Table 1: Characteristics of 3 studies:

Study	N	Type	Weight
El-Rasheedy, et al. (1992)	16	<i>Descriptive cross sectional:</i> Personality characteristics using MMPI and EPQ	1
Moussa, et al. (2004) and El-Askary, (2002)	34	Case-control:	4
Rakhawy, (2009)	41	<i>Descriptive cross sectional:</i> history of childhood abuse	2.5

RESULTS

Table (2) Using the percentages of patients showing impairment on each of the 12 ego functions, the following aggregate analysis was reached:

Table 2: Shows the results of all three studies in % impairment. Ranking of the ego function reflects weight aggregate analysis:

Ego Function	El-Rasheedy, et al. (1992) % impaired	Moussa, et al. (2004) and El-Askary, (2002) % impaired	Rakhawy, (2009) % impaired	Aggregate weighted analysis	Rank
Reality testing	16	26	40	27.5	10
Judgment*	22	52	69	50	2
Sense of reality	3	3	37	13.5	9
Regulation and control	22	53	65	49.5	3
Object relations*	28	45	62	45	6
Thought Processes	16	25	69	36	8
Defensive Functioning	61	35	72	48	4
Stimulus Barrier	29	36	59	40	7
Autonomous Functioning	22	45	65.5	46	5
Mastery-Competence*	34	49	68	50	2
Synthetic Integration*	59	33	69	45	6
ARISE	56	47	65.5	51	1

*Two ego functions share the same rank: Object relations and synthetic integration.

*Two ego functions share the same rank: Judgment and mastery and competence.

DISCUSSION

Results indicate high level of disturbance of the ego and its functions, a general characteristic of the substance use disorder as Khantzian, (1981) emphasized in his studies as the imbalance of the addict's ego and his inability to maintain ego autonomy. Weighted aggregate analysis showed that the most impaired functions were ARISE and judgment. **Adaptive regression in service**

of the Ego (ARISE) function come in first order of impairment. Wieder and Kaplan, (1969) emphasized that preadolescent developmental conflicts leave certain individuals specifically vulnerable to problems of anxiety, depression, and physical discomfort during adolescence. In such cases drugs seemed to provide the means to induce a desirable ego regression. Wurmser,

(1974) believed that narcotics are used adaptively by narcotic addicts to compensate for defects in affect defense, particularly against feelings of "Rage, hurt, shame and loneliness." Khantzian, (1975) stressed drive defense and believed narcotics act to reverse regressed states by the direct anti aggression action of opiates, counteracting disorganizing influences of rage and aggression on the ego.

Impaired judgment that follows is in line with Khantzian, (1977) statement that drug dependents show a disregard of possible dangers of their well being, and with Smith and Hucker, (1994) that the appearance of antisocial behavior and the impairment of ego regulatory function in addicts lead them to take immature and irresponsible decisions. Robinson and Berridge, (2003) emphasized the idea that dysfunction of frontal cortical systems, which normally regulate decision making and inhibitory control over behavior, leads to impaired judgment and impulsivity in addicts.

At the same rank is impairment of **mastery-competence** function. Results support those reported by Gossop, (1976) that show considerable deficiencies of self-esteem among drug-dependent patients and Khantzian, et al. (1990) that substance abusers do not develop a sufficient capacity for self-love such that they do not enjoy confidence in themselves or their abilities and have difficulty feeling value in the world. Negative attitudes from the society towards them as well as the negative sequences of the dependence itself, further erodes self esteem. This weakness in the face of life stressors creates a sort of anxiety the addicts try to control using drugs and alcohol. Eid, (2006) reported significantly lower self concept and esteem among substance dependent adolescents compared to control. Veselska, et al. (2009) concluded that Negative self-esteem seems to play an important role regarding smoking and cannabis use among boys.

The next impaired function is **regulation and control**. Khantzian, (1977) stress how much of the addict's self-disregard is not so much consciously or unconsciously motivated, but more a reflection of defects in self-care functions as a result of failures to adopt and internalize these functions from the caring parents in early and subsequent phases of development. The over determined and defensive forms of self-destructive behavior among addicts do not adequately account for all the terribly dangerous and destructive activity, to the point of death. Impulsivity is predominant among users of several drugs of abuse including alcohol, cocaine, and amphetamines, and it is considered a risk factor for later development of alcohol and substance abuse and dependence. The high incidence of impulsiveness aggression callousness and irresponsible behaviors we used to report among substance dependent patients are explained by Fine and Miller, (1993) who suggested that substance abuse is a coping mechanism against dysphoria of excessive aggression and impulsiveness.

Fox, et al. (2007) found cocaine dependent individuals to have difficulties in emotional regulation and impulse control. Verdejo-García, et al. (2007) found substance dependent patients to have higher scores on several dimensions of impulsivity compared to control subjects, they found urgency-tendency to act impulsively in response to emotional states-to be the best predictor of severity of medical, employment, alcohol, drug, family/social, legal and psychiatric problems among individuals with substance dependence.

Defensive function was the next impaired function. McDougall, (1984) stated that the defensive function of the ego is defective among substance dependent patients and detected avoidance of affective flooding (Mostly diffuse anxiety and irritability) among those patients. Rakhawy, (2000) added that overwhelming information confronting our consciousness in recent days is beyond man's ability to cope with to process and assimilate in coordination with existential demands to survive. Moreover, defenses that are needed to cope with such an overwhelming flood seem to be getting more but insufficient. It seems that addicts are seeking to compensate for this retreat; however, addiction is a fluty trial for such compensation. From the perspective of ego psychology, the person who becomes dependent on drugs loses the ability to navigate the world of internal stressors and external constraints using standard ego defenses the drug becomes his or her primary coping mode (Juni and Stack, 2005).

Next in order is **autonomous function**. Addiction represents a pathological disruption of the neural mechanisms of learning and memory that under normal circumstances serve to shape survival behaviors related to the pursuit of rewards and the cues that predict them (Hyman, 2005). Substance dependence has the capacity to entangle patients in their own dependence until they eventually vanish within the addiction itself without having a sense of uniqueness or individuality.

The **synthetic integrative function** impairment follows. Khantzian, (1981) reported that an important step for understanding substance abuse is to emphasize self-regulatory deficiencies including deficits in self-care, self-development, self esteem, self object relationships and affect. The ego must serve as a signal and guide in protecting the self against realistic external dangers and against the chaos in internal emotional life.

Object relation impairment shares the same rank. Deficits in self-development and self-esteem of the substance abusers cause major problems in relationships. Blatt, et al. (1984) emphasized that primary disturbance in opiate addicts appears to be their relative inability to conceptualize people as well differentiated, articulated, and involved in meaningful, purposeful, and constructive activity. In addition he found opiate addicts to have notable affective lability. These difficulties in interpersonal relations and affect modulation are

consistent with disturbances in the neurotic range and suggest that opiate addicts have selected a particularly untoward, self-destructive, isolated mode of adaptation for achieving the satisfactions and pleasures most people seek in intimate personal relationships.

Coming next to object relation is impairment of **stimulus barrier**. The tendency for the affects of depression and anxiety to remain somatized, unverbilized and undifferentiated in addicts, results in a defective stimulus barrier and thus leaves such individuals ill-equipped to deal with their feelings, and predisposes them to drug use (Krystal and Raskin, 1970). Patients rationalize their use of psychoactive substances as a protective method against overwhelming affects mainly anxiety. Krystal, (1988) pointed to a defect in the stimulus barrier of addicts resulting in repeated experiences of traumatization by painful affects that can not be warded off.

Although addicts have been described as being at the mercy of primitive impulses and overwhelming sense of need that nearly blocks the capacity to perceive and integrate reality (Zinberg, 1975), neither reality testing nor sense of reality of self and world showed any impairment.

CONCLUSIONS

- Ego functions of substance dependent patients are significantly impaired.
- The most impaired functions are judgment and ARISE.

Challenges

It is our inclination to share with the reader the challenges met with in this study in order to draw attention to the hurdles this type of research is likely to meet if no provisions are made to protect against them. To date, this is the first metanalysis conducted on this population. The difficulties we met were several.

Firstly: locating the studies constituted a hurdle since electronic archiving of National Research is a new development. This hurdle is likely to become a stepping stone as more national electronic resources and databases get developed thus minimizing the possibility of missing grey literature or unpublished dissertations.

Secondly: The non uniform scoring system of the same tool formed a limitation on the statistical analysis that can be conducted. **Thirdly:** the inaccessibility of raw data of one of the studies prevented the possible elaborate analysis that can be conducted. **Future:** studies addressing this population and using the same tool are encouraged to unify their approaches and to communicate with the authors before conducting their research.

Insights and treatment implications

The reported impairment of ego functions supports our belief that effective treatment of narcotic addicts rests on more precisely identifying the underlying psychopathology and character disturbance. To do this requires the establishment of control over the addiction and the destructive activity and behavior often associated with it. However, this is understandably no easy task. The addict trusts his solutions more than ours. We and others also know that the use of drugs has played a most important part in regulating and controlling the addict's otherwise overwhelming anxiety, depression and rage. The challenge of initial treatment interventions is to provide acceptable provisions and substitutes for the drugs in order to create the structure and time that make understanding and management of the addict's problems possible. The main lines for intervention and treatment remain the traditional institutions, drug substitution, and human relationships.

The necessity for consistency, empathy, activity and availability is apparent. Readiness to put into words the Addict's feelings that he can hardly recognize or identify for himself, or others, is essential. Firm but non-punitive confrontation of violent and unacceptable behavior is also often required. The therapist must also be active in pointing out the patient's inability or disinclination to perceive danger and risk in his daily living. The fragile to non-existent self-esteem in addicts must be appreciated continuously. Massive confrontations about their problems with violence and rage should be avoided. Similarly, passive longings and dependency problems should not be overexposed; defenses that serve to disguise such problems should be dealt with gingerly and respectfully. However, one should not ignore the destructive consequences and/or withdrawal when such defenses are extreme and exaggerated. Psychotherapists have found it useful to approach these problems gradually by identifying the difficulties around the inability of such patients to gain "Sufficient satisfaction" out of life. This is done by repeatedly but tactfully identifying, whenever it comes up, the patient's tendencies to pursue extremes of indulgence or self-denial in relation to his wishes, relationships and activities. In the therapeutic relationship, extremes' of aloofness or exaggerated friendliness are avoided by the therapist; questions are answered; sharing of personal experience and requests for practical assistance around daily living problems are again dealt with by avoiding extremes of withholding or giving. Generally, attempts are made to gradually help our patients overcome their exaggerated self-sufficiency and to see that they can overcome their fears and mistrust about involving themselves, and that the world can provide reasonable degrees of satisfaction.

Corresponding Author

Assistant Professor. Salwa Erfan
Assistant Professor of Psychiatry, Kasr El Aini, Faculty
of Medicine, Psychiatry and Addiction Hospital, Cairo
University, Manial, Cairo, Egypt.
Mobile: 0105132702
E-mail: Dr_salwaerfan@hotmail.com

REFERENCES

- Bellak, L. 1973.** Ego function clinical assessment. In Ego functions in schizophrenia, neurotics and normals, edited by L. Bellak, M. Hurvich and H. Gediman. New York: John Wiley.
- Bellak, L., and Sheehy, M. 1976.** The broad role of ego functions assessment. The American Journal of Psychiatry 133(11):1259-1264.
- Blatt, S. J., and Berman, W. H. 1990.** Differentiation of personality types among opiate addicts. Journal of Personality Assessment 54(1-2):87-104.
- Blatt, S. J., Rounsaville, B., Eyre, S. L., and Wilber, C. 1984.** The psychodynamics of opiate addiction. The Journal of Nervous and Mental Disease 172(6):342-352.
- Eid, H. F. 2006.** Substance dependence in a sample of Egyptian adolescents. Ph.D. diss.
- El-Askary, R. 2002.** Ego function and comorbid anxiety disorders in substance use disorders. Ph.D. diss., Kasr Al Ainy Faculty of Medicine, Cairo University.
- El-Rasheedy, A., Erfan, S., and Khairy, N. 1992.** Structural typologies of substance abusers: Implications for psychotherapeutic interventions [unpublished paper].
- El-Saeid, N. A. S. 1996.** Symptoms, ego functions and possible syndrome shift. Ph.D. diss., Faculty of Medicine, Cairo University, Cairo, Egypt.
- Fine, J., and Miller, N. S. 1993.** Evaluation and acute management of psychotic symptomatology in alcohol and drug addictions. Journal of Addictive Diseases: The Official Journal of the ASAM, American Society of Addiction Medicine 12(3):59-72.
- Fox, H. C., Axelrod, S. R., Paliwal, P., et al. 2007.** Difficulties in emotion regulation and impulse control during cocaine abstinence. Drug and Alcohol Dependence 89(2-3):298-301.
- Gossop, M. 1976.** Drug dependence and self-esteem. The International Journal of the Addictions 11(5):741-753.
- Hatterer, L. J. 1982.** The addictive process. The Psychiatric Quarterly 54(3):149-156.
- Hyman, S. E. 2005.** Addiction: A disease of learning and memory. The American Journal of Psychiatry 162(8):1414-1422.
- Juni, S., and Stack, J. E. 2005.** Ego function as a correlate of addiction. The American Journal on Addictions / American Academy of Psychiatrists in Alcoholism and Addictions 14(1):83-93.
- Khantzian, E. J. 1975.** Self-selection and progression in drug dependence. Psychiatry Digest 10:19-22.
- Khantzian, E. J. 1977.** The ego, the self and opiate addiction: Theoretical and treatment considerations. In Psychodynamics of drug dependence, edited by J. D. Blaine and D. A. Julius. Washington, DC: U.S. Department of Health, Education and Welfare Public Health Services. p. 114-116.
- Khantzian, E. J. 1981.** Some treatment implications of the ego and self disturbances in alcoholism. In Dynamic approaches to the understanding and treatment of alcoholism, edited by M. Bean. Free Press. p. 255-270.
- Khantzian, E. J., Halliday, K. S., and McAuliffe, W. E. 1990.** Addiction and the vulnerable self: Modified dynamic group therapy for substance abusers. 1st ed. The Guilford Press.
- Krystal, H. 1988.** Integration and self-healing: Affect, trauma and alexithymia. The Analytic Press.
- Krystal, H., and Raskin, H. A. 1970.** Drug dependence: Aspects of ego functions. Detroit: Wayne State University Press.
- McDougall, J. 1984.** The "dis-affected" patient: Reflections on affect pathology. The Psychoanalytic Quarterly 53(3):386-409.
- Moussa, F. A., Shahin, O., El Ray, L., et al. 2004.** Comorbid anxiety disorders in substance abuse disorder (A psychodynamic study). The Egyptian Journal of Mental Health 41:23-43.
- Rakhawy, M. 2009.** The relation between childhood abuse and the severity of substance abuse disorder. The Egyptian Journal of Psychiatry. [In press].
- Rakhawy, Y. 2000.** Addiction as a chemical religion substitute. The Egyptian Journal of Psychiatry 23:135-138.
- Robinson, T. E., and Berridge, K. C. 2003.** Addiction. Annual Review of Psychology 54:25-53.
- Smith, J., and Hucker, S. 1994.** Schizophrenia and substance abuse. The British Journal of Psychiatry; the Journal of Mental Science 165(1):13-21.
- Verdejo-García, A., Bechara, A., Recknor, E. C., and Pérez-García, M. 2007.** Negative emotion-driven impulsivity predicts substance dependence problems. Drug and Alcohol Dependence 91(2-3):213-219.
- Veselska, Z., Geckova, A. M., Orosova, O., et al. 2009.** Self-esteem and resilience: The connection with risky behavior among adolescents. Addictive Behaviors 34(3):287-291.

Wieder, H., and Kaplan, E. H. 1969. Drug use in adolescents. Psychodynamic meaning and pharmacogenic effect. The Psychoanalytic Study of the Child 24:399-431.

Zinberg, N. E. 1975. Addiction and ego function. The Psychoanalytic Study of the Child 30:567-588.

Wurmser, L. 1974. Psychoanalytic considerations of the etiology of compulsive drug use. Journal of the American Psychoanalytic Association 22(4):820-843.

الملخص العربي

ما هو نوع الأنا الذي نحن بصددده هنا؟ وظائف الأنا في مجموعة من مدمني المخدرات

سلوى عرفان^١، مصطفى الرخاوى^١، أمانى الرشيدى^١ وناهد خيرى^٢
^١أستاذ مساعد (كلية الطب-جامعة القاهرة) و^٢مدرس أمراض نفسية (كلية الطب-جامعة القاهرة)

معايير إختارها المؤلفون ثم تم تحليل النتائج لترتيب الوظائف من أكثرهم إضطراباً إلى الغير مضطرب. أشارت نتائج البحث إلى أن أكثر الوظائف اضطرابات هي القدرة على الإسترخاء والقدرة على الحكم على الأمور في حين أن كل الوظائف التي تعكس العلاقة بالواقع لم تظهر أى اضطراب. وأخيراً يشير البحث إلى أهمية تكرار نفس المنهج على مجموعات من المرضى حتى يتراكم لدينا خبرات تعين على إختيار البرامج التأهيلية المثلى.

إنطلاقاً من مفهوم أن الأنا هي الركيزة الأساسية التي يعتمد عليها التأهيل في حالات الإدمان ومن أنها تعد من العوامل الأساسية التي تساعد على التعافى ومنع الانتكاسة سعى هذا البحث إلى إستكشاف الإضطراب في وظائف الأنا في مجموعة من الأبحاث المصرية التي قامت بإستخدام مقياس "بلاك" لتقييم وظائف الأنا في المدمنين. وقد تم جمع كل الأبحاث المنشورة والغير منشورة التي تناولت هذه المجموعة من المرضى وتم إعطاء كل بحث قيمة ووزنة حسب