

A COMPARISON BETWEEN THE PSYCHO-SOCIAL CHARACTERISTICS OF DRUG ADDICTS AND NON-ADDICTS[#]

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The present study was designed to identify certain psychological characteristics associated with drug addicts which differentiate them from non-addicts. It was hypothesized that the drug addicts would be found different from the non-addicts on variables such as attitude towards drug taking, interpersonal relationships, self-concept, personal values, risk-taking, motivation, rebelliousness, pleasure-seeking, and peer influence. The participants were contacted at the Drug Abuse Treatment Centres (DATC) of Government Lady Reading Hospital (LRH), Hayat Shaheed Teaching Hospital (HSTH), Mental Hospital, and Dost Welfare Foundation, Peshawar, Pakistan. A sample of 100 male subjects including an equal number of drug addicts and non addicts were carefully matched on variables such as age, education, marital status, economic status, and residential area. A semi-structured questionnaire was used to collect the demographic information and other relevant information of drug-addicts and non-addicts. Psycho-social Characteristics Rating (PSCR) Scale (Boey, Hong, & Long, 1989) (Urdu version adopted) was administered to addicts and non-addicts. The results show significant differences between addicts and non-addicts. All the hypotheses were confirmed ($p < .0001$).

The major aim of the present investigation was to determine some of the psychological characteristics of drug addicts, which differentiate them from non-addicts.

The problem of drug addiction is not a new phenomenon in the present day world. The history of drug abuse dates back for millennia. People have been using drugs not only as a means of coping with life itself but also, apparently, to derive pleasure out of it and to facilitate religious and ritualistic aims. The substance abuse is one of the most serious problem reducing social and human resources in different parts

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of the world. The problem of addiction is not limited to individuals in certain social strata but appears to affect the whole of society.

Different types of drugs are abused for various reasons like medical needs, psychological problems, social customs etc., in certain sub-cultures of Pakistan. Though traditional drugs of Cannabis (*Bhang* and *Charas*), opium, and alcohol have been used in Pakistan, in the beginning of the eighties, a substantial change in drug-use pattern began due to the introduction of heroin at the international market including Pakistan.

Apart from the direct effects of drugs on health and life expectancy, drug addiction is also associated with others problems such as psychological and social. The most dangerous drugs in this respect are those with the highest dependence liability i.e., heroin and cocaine. The social impact and personality changes produced by these drugs may affect not only the addicts themselves but also those around them and the community. In spite of all these worst consequences, man is using drugs of various kinds to cope with the unpleasant situations in his life.

There are individual differences while facing a stressful situation. Some people accept the challenges before them and are prepared to struggle lifelong or even lay down their life, others make a variety of compromises or simply give up and choose the path of least resistance and may turn to alcohol or some other drugs to escape from the unpleasant experiences. Clearly, one's behavior and the response to given situation can be viewed as the result of an interplay between various underlying factors affecting the individual personality, family, and the community to which he belongs.

Many factors are, thus, considered to play a part in starting, continuing, and stopping the self-administration of dependence producing drugs. It is also recognized that there is no one answer which can provide a unitary solution to the problems of drug use, since etiology of drug addiction is multi-factorial: It ranges from pharmacological to the environmental, social, and psychological factors.

The disturbed home and family setup, the inter-parental and parent-child conflict, parental neglect in large families, defective disciplinary techniques (too lax or too strict) and family disorganization are considered as some of the causes of drug abuse. Family, the most important unit of society, when does not function adequately, the individuals feel anxious, frustrated, dissatisfied, insecure, or even hostile towards family members. Such problems at times involve the individual in drug addiction.

Another important factor in the initiation of drug-seeking behavior is the peer group pressure. Individuals, who come from disturbed home environment seek the company of groups which may sometimes encourage the use of drugs. Kandel (1974) found that the closer the intra-generational relationships, the stronger the influence of peers. The loose morals and social values also help in the initiation of drug usage. Hatterer (1985) also indicated that peer group pressure is the main factor to compel the young person to take some drugs. Researches have pointed out that the influence and encouragement of friends, social acceptance, the alliance with friends, the desire to go along with the crowd, peer values may initiate the drug taking (Chandrasegaram, 1984; Hendler & Stephens, 1977; Scher, 1970).

The drug-use not only results in temporary relaxation but also an escape mechanism from frustration. The studies of Chandrasegaram (1984) and Nevdowsky (1981) show that the desire for satisfying one's curiosity about drugs and their effects is obviously an important psychological factor and a strong motive in drug abuse.

On the other hand, it has been proposed that people may use drug for thrill seeking, dangerous experiences, and for fun (Brill, Crumpton, & Grayson, 1971). Some use drugs because they are more rebellious, oppose conventional social norms and traditional values. Kosviner and Hawks (1977) have found in their studies that due to hostile attitudes toward authority and parental figures drugs are used as a symbol of rejection for conventional values.

The drug addicts possess a weak ego and are unable to face the realities of life and meet the demands of society. Therefore, drugs provide a temporary shelter for this inadequacy and inferiority. In conjunction with the weaknesses of personality, lack of self-concept or a low self-concept constitutes another causative factor, which is regarded as a powerful predictor in drug misuse. Smart and Whitehead (1974) found that a low self-concept and a poor male identity are the causative factors of drug addiction.

Attitudes favorable to intoxication are undoubtedly a significant factor reinforcing drug seeking behavior. Kamali and Steer (1976) studies produced consistent results that the drug users had more favorable attitudes toward drug taking than the non-users. Stoessel (1972) study further shows that those who are using poly drugs are rebellious against their parents.

The present study was designed with the aim to identify certain psychological characteristics associated with drug addicts, which differentiate them from the non-addicts.

In view of the above typical cultural conditions, it then seems pertinent to identify those characteristics which might be related to the etiology of drug addiction and which can differentiate them from non-addicts. The study undertakes to examine both personality and social psychological factors influencing drug addiction. The drug addicts may differ in attitudes toward drugs, interpersonal relationships, self-concept, personal values, risk-taking tendency, motivation, rebelliousness, pleasure-seeking, and peer group influences as compared to non-addicts. This is the main theme of the present study. Specifically, the study was designed to explore the following hypotheses:

- I. The drug addicts will have a more favourable attitude toward intoxication as compared to non-addicts.
- II. Those persons who have poor interpersonal relationships are more vulnerable to drug addiction.
- III. The drug addicts will have poor self-concept as compared to the non-addicts.
- IV. The drug addicts will score low on Personal Values Scale as compared to the non-addicts.
- V. The drug addicts will have greater risk-taking tendency than the non-addicts.
- VI. The drug addicts will secure low scores on Motivation Scale as compared to non-addicts.
- VII. The drug addicts will be more rebellious to cultural traditions as compared to the non-addicts.
- VIII. Momentary pleasure-seeking is the dominant characteristic of drug addicts, which differentiates them from the non-addicts.
- IX. The influence of peer-group may lead a person to drug-addiction.

METHOD

Sample

The sample consists of 100 male subjects. An equal number of drug addicts and non-addicts were selected from the patients admitted in the four major detoxification and rehabilitation centers located in

Peshawar, NWFP, Pakistan. The criterion of selection of the subjects was based on stratified random sampling. The addicts and non-addict subjects were matched on the following variables: age, education, socioeconomic status, marital status, and residential area. Since matched pairs (addicts and non-addicts) were not easily available, most of the addicts selected as subjects were matched with one of their attendants (friends, colleagues, or brothers, cousins) who accompanied them to the hospital. It is worth mentioning here that information regarding drug-addiction was collected from and analyzed on a total number of 75 addicts.

Instruments

In order to measure various variables following instruments were employed.

A semi-structured questionnaire was prepared to collect the relevant information of subjects concerning age, residential area, education, marital status, socioeconomic status, birth order, and other information related to drug addiction i.e., duration of addiction, age when started, types of drugs used, easy availability and mode of consumption.

In order to measure attitude towards drug taking the Psycho-social Characteristics Rating Scale (PSCR) was used. It includes nine subscales of 12 item each. It measures attitude towards drug-taking, interpersonal relationships, self-concept, personal values, risk-taking tendency, motivation, rebelliousness, pleasure-seeking, and peer influence. The first eight sub-scales were constructed by a team of psychologists for the study of drug problem in Singapore (Hong, Boey, & Long, 1989) while peer influence was measured through the Index of Peer Relations (IPR) developed at the National Institute of Psychology (Aziz, 1991). The present author and two M. Phil. students (judges) of Psychology used back translation technique to translate the first eight subscales in Urdu. Later on translated scales were again examined by one of the faculty member and where deemed necessary some changes in translation were done. Inter-item correlations were calculated for all these scales. All these correlations are significant at $p < .01$, except for the two items, which are significant at .05 level. Table 1 shows the reliability of each scale, ranging from .57 to .86, which were considered to be highly satisfactory.

Table 1

Reliability analysis of the Psycho-Social Characteristics Rating (PSCR) Scale (Urdu Version) (n = 50).

Scales	Alpha Coefficients
1.	.65
2.	.76
3.	.80
4.	.86
5.	.62
6.	.72
7.	.67
8.	.77
9.	.57

Number of items in each scale is 12.

Procedure

The subjects were contacted at the drug addicts treatment centers (DATC) of the Government Lady Reading Hospital, Hayat Shaheed Teaching Hospital, Mental Hospital Peshawar and Dost Welfare Foundation (NGO) Peshawar. During the initial meeting each subject was motivated to undergo the assessment process. A semi-structured questionnaire interview was used to collect the demographic data and other relevant information, concerning duration of addiction, mode of consumption and experiences related to his drug use. All the answers were noted down by the experimenter. Only one subject was assessed at a time. The responses of addicts were noted on the questionnaire answer sheet. PSCR Scale was administered to each subject according to the standard procedure. To verify demographic variables, the author with the permission of hospital administration checked all information from the hospital record.

RESULTS

The results obtained from the analysis of the data show a significant difference between addicts and non-addicts ($p < .0001$) on 8 subscales of Psycho-Social Characteristic Rating Scale and Index of Peer Relations (Table 2).

Table 2

The Mean, Standard Deviation and t-Value of Addicts and Non-addicts on Subscales of PSCR

S.No.	PSCR Scales	Addicts (n = 50)		Non-addicts (n = 50)		t	p
		M	SD	M	SD		
I	Attitude towards drug taking	42	6	18	5	20.62	.0001
II	Interpersonal relationship	27	4	50	7	19.24	.0001
III	Self-concept	27	3	45	8	14.24	.0001
IV	Personal values	28	4	53	6	22.38	.0001
V	Risk-Taking Tendency	41	6	23	6	14.30	.0001
VI	Motivation	25	3	46	7	18.41	.0001
VII	Rebelliousness	41	4	18	5	23.69	.0001
VIII	Pleasure-Seeking	41	5	20	6	18.71	.0001
XI	Peer Influence	42	5	27	4	13.15	.0001

The following tables include information related to drug addiction.

Table 3

The Frequency and Percentage of Types of Drugs, Easy Availability, and Drug First Experience (N = 73)

	Types of Drugs		Easy Availability		Drug First Used	
	f	%	f	%	f	%
Hashish	10	13.33	10	13.33	52	69.33
Heroin	15	20	15	20	13	17.33
Hashish and Heroin	40	53.33	40	53.33	-	-
Alcohol	5	6.66	5	6.66	5	6.66
Opium	2	2.66	2	2.66	2	2.66
Tranquilizers	1	1.33	1	1.33	1	1.33

The results in Table 3 show that 53.33% of the addicts used both hashish and heroin, 53.33% addicts responded that both hashish and heroin are easily available while 69.33% addicts first used hashish as a drug.

Table 4

The Frequency and Percentage of Onset Age of Drug Taking by Addicts (N = 75)

Age (Years)	<i>n</i>	%
15-20	58	77.33
21-25	11	14.66
26-30	5	6.66
31-35	1	1.33
36-40	0	0.00
40-above	0	0.00
Total	75	100.00

Mean Age = 18.44

The results in Table 4 show that 77.33% addicts are lying in range of age 15 to 20 years (Mean age = 18.44), which indicate that adolescence in our culture is a crucial period for the use of illicit drugs.

DISCUSSION

The present study was designed to examine the difference between addicts and non-addicts on variables such as attitude toward drug-taking, interpersonal relationships, self-concept, personal values, risk-taking tendency, motivation, rebelliousness, pleasure-seeking, and peer group influence as measured by the Psycho-social Characteristics Rating (PSCR) Scale. The results show that there is a significant difference on each of these nine variables between the addicts and non-addicts. In other words, the drug addicts could be significantly differentiated from the non-addicts on these nine psycho-social characteristics.

Generally, people do not understand the adverse effect of drugs on their behavior. Due to lack of cognitive component of attitude such

individuals form a favorable attitude towards intoxication as a significant factor reinforcing drug-seeking behavior. Results (Table 2) show that the drug addicts had a more favorable attitude towards drug taking than the non-addicts. It suggests that the addicts had favorable attitude towards using unlawful drug as was hypothesized. Numerous other studies for instance Kamali and Steer (1976), Stoessel (1972) and Riggs (1973) have produced similar results, that is, drug addicts have a more favorable attitude towards drug-taking than the non-addicts.

It is universally accepted that family is the most influential socializing agent. It is through family relationships, especially relationships with parents that the child learns to conform to group norms and behave accordingly. As mentioned in the hypothesis that the individuals having unhappy family life as a result of parental conflict, sibling rivalry and parent child strained relations have less trust and concern for other people. Such persons will have greater chances to involve in illicitly use of drugs. The results (Table 2) reveal that the drug addicts had poor interpersonal relationships than did the non-addicts. They not only tend to have poor relationship with their parents and siblings but also were more likely to ignore its importance to themselves. Besides, they had less trust in themselves and less concern for other people. High elevation of the non-addicts on psycho-social characteristics show that non-addicts scored higher on positive interpersonal relations as compared to the addicts. It indicates that the non-addicts are more respectful to their elders, more conscious of their duties and loyal to their social values, thereby confirming our hypothesis (significant at $p < .001$ level).

Prendergart (1974) research shows that psychological tension in the father-child relationship may increase the use of marihuana among the students. There are numerous other studies done in Pakistan (e.g., Ahmed & Shafi, 1990; Habib, 1984; Najma & Farzana, 1990; Shagufta, 1991), which show that poor interpersonal relations may lead to drug addiction. The results of all these studies are consistent with our findings. The difference between Pakistani studies as mentioned above and the present one is the different use of measuring techniques and relation with other variables.

The person's concept about himself mean "who am I". It explains an individual's belief that he or she can solve a problem, accomplish a task, or function successfully in a particular area. A person who lacks this confidence may tend to avoid challenges or give up quickly when obstacles are encountered. In contrast, a person with a strong belief in the possibility of success is likely to perform in accordance with this belief. Regardless of their level of knowledge or skill, people dealing

with any kind of problem are most likely to be successful in finding and acting on solutions when they have good self-concept.

The present study also deals with self-concept of drug addicts. Drug addicts possess poor self-concepts as compared to the non-addicts. They tend to perceive their own abilities and their lives less favorably. Comparatively they were not happy and were not satisfied with their life. High elevation of the non-addicts on Self-concept Scale shows that they possess positive self-concept. The higher the level of perceived self-concept, the greater the performance accomplishment. The study had proposed that the drug addicts might perceive their own abilities to be inadequate and they may have poor self-concepts. They might not be happy with their life style and remain dissatisfied with their own performance. Therefore, a low self-concept has been predicted to be a powerful causative factor to drug addiction. It was hypothesized that the drug addicts will have a poor self-concept as compared to the non-addicts. The results have confirmed the hypothesis no.3 (significant at $p < .001$ level as shown in Table 2).

Other studies (e.g., Lindblad, 1977; Segal, Rhenberg, Sterling, 1975) show that the drug addicts possess significantly more negative self-attitude or poor self-concept than their non-drug taking counterparts. These studies support the findings of the present study.

Another important factor which differentiates the drug-addicts from non-addicts is the personal values. The drug addicts are less sympathetic, less concerned for others, and less public oriented. They have negative perception about human nature and life and less concerned about the social norms and values and are strongly opposed to the conventional system. It was hypothesized that the drug addicts will have greater negative views with regards to the nature of man, the human life, dedication to society and other dimensions of the world as compared to the non-addicts. The high elevation on profile of the non-addicts on the Personal Values Scale of Psycho-Social Characteristics Rating Scale indicated that non-addicts had more positive and favorable perceptions on the "nature of man", "the human life", "the world", and "dedication to society" than the drug addicts. It further indicates that the drug addicts are less sympathetic, reasonable, and public minded as compared to the non-addicts. This hypothesis is confirmed (significant at $p < .001$ level as shown in Table 2).

Tahir (1993) found that the drug addicts are emotionally immature, having poor inner control, and have the tendency towards the violation of social norms. On the other hand, the non-addicts appear emotionally stable, have good-interpersonal relations and acceptance of social

norms. Hager (1976) reported that the drug addicts are positively related to negative orientations towards traditional values. The results of the above mentioned studies are consistent with our findings.

It is generally believed that the drug addicts' behavior remain intractable despite the evidence that they are dangerous to self and other. In other words, the drug addicts are likely to take more risks in various situations. Therefore, it was hypothesized that the drug addicts will have greater risk-taking tendency than the non-addicts. The high elevation on the Risk-taking Tendency Scale of Psycho-Social Characteristics Rating Scale profile shows that drug addicts have greater tendency to take risk in various situations as compared to the non-addicts. The greater risk-taking tendency may indulge addicts into various behavioral activities dangerous to one's life. This risk-taking tendency may increase the curiosity of the individuals to experience the un-lawful drugs and to get immediate gratification. The hypothesis is significant at $p < .001$ level (Table 2). Similarly, other studies (e.g., Booth & Gossop, 1976; Gossop & Grant, 1990; Reed, 1972) found that the narcotic addicts have greater tendency to take risk than the non-addicts.

Generally, the drug addicts have low motivation level, which means that they are unable to face the challenges of life, have low potential to accomplish a task and lacks interest in tough kind of work. It was hypothesized that the drug addicts will be less hard working and achieving as compared to the non-addicts. High elevation of non-addicts on Motivation Scale of Psycho-Social Characteristic Rating Scale indicates that the non-addicts are high-achievement oriented, function successfully, and have eagerness to accomplish a task. On the other hand, the low motivation may lead the individual to frustration. As a result of this frustration, the individual having poor self-concept is unable to cope the stressful situation and therefore, indulge himself in drug-addiction. The hypothesis is significant at $p < .001$ level (see Table 2).

Bandura (1982) reported that higher the level of perceived self-efficacy, the greater the performance. The accomplishment strength of efficacy (i. e., motivation) also predicts behavior change.

Drug addicts tend to be more rebellious. They are hostile to authority and oppose conventional social values and traditional values. They use drugs as "a symbol of rejection" or to show inclination towards other deviant behaviors. According to the results, the drug-addicts exhibit rebelliousness, non-compliance to the existing norms, reject social conventions, and traditional family norms. It was

hypothesized that the drug addicts will be more rebellious to cultural traditions as compared to the non-addicts. High elevation on the Rebelliousness Scale of Psycho-social Characteristics-Rating Scale indicates that the drug addicts are more rebellious than the non-addicts, which brought them to the temporary shelter of unlawful drugs. On the other hand, low score of the non-addicts on Rebelliousness Scale indicates obedience to authority and conformity to the social and traditional values. The hypothesis is confirmed (significant at $p < .001$ level as shown in Table 2).

Jurich and Polson (1984), Kosviner and Hawks (1977) and Lukoff (1974) among others indicate that the drug addicts are more rebellious to conventional and traditional values and also as a result of this rejection associate with other deviant behaviors. The results of this study are similar with the findings of the above mentioned studies.

As mentioned in the hypothesis pleasure and thrill seeking behavior may be one of the prime aims of individuals of a frustrating culture as perceived by drug addicts. A defining characteristic of addictive behavior is that they involve in the pursuit of short-term gratification at the expense of long-term harm. These kinds of things may happen to everyone in the course of a normal life also. Each of us has had the experience of indulging in behaviors that are not in our long-term best interests. But the individual with adequate ego-functioning manage themselves while the hedonistic type personality may involve themselves in the pleasure-seeking activities such as the use of un-lawful drugs to achieve temporary relief. So getting immediate gratification is one of the characteristics of drug addicts. In our study, momentary pleasure-seeking is the dominant characteristic of drug addicts, which differentiates them from non-addicts.

High elevation of the drug addicts on Pleasure-seeking Scale of Psycho-social Characteristics Rating Scale indicate that the drug addicts wants immediate gratification of their hedonistic desires which clearly differentiate them from the non-addicts. Individuals with more pleasure-seeking tendency may be susceptible to drug-addiction as compared to the less pleasure-seeking individuals. The hypothesis is significant at $p < .001$ level (Table 2). Holinrak (1979) found similar tendency in drug-addicts, that is, the drug addicts wish to increase pleasure with the help of drug.

Friends are found among the most responsible agents for suggesting drug use. Peer use of drugs is the strongest influencing agent in adopting the addictive behavior. As mentioned earlier, most of the drug addicts belong to disturbed families and they seek the company of

peer groups to get supply of drugs preferred as well as sympathy and comforts from their friends. Sometime the group members encourage the use of drugs. Thus the desire to go along with the friends and identify with them, make them users of illicit drugs.

High elevation of the drug addicts on the Index of Peer Relations (IPR) indicates that drug addicts are more influenced by the peer group as compared to the non-addicts. This negative peer group influence clearly differentiated the drug addicts from non-addicts. The hypothesis is also confirmed ($p < .001$, Table 2). There are numerous studies (see, Ahmad & Shafi, 1990; Aziz, 1991; Najma & Farzana, 1990), which have found that peer group is more influential in the initiation of drug-addiction. It further revealed that peer group is one of the precipitating factor of drug addiction. These studies were found similar to our findings.

These results provide sufficient reasons to suspect that these differences in personality characteristics are associated with the vulnerability to drug addiction. All of our hypotheses were supported by the data and also found significant at $p < .001$ level. Hence, it seems that the development of drug addiction problem is closely associated with these psychological characteristics i.e., attitude towards drug-taking, interpersonal relations, self-concept, personal values, risk-taking tendency, motivation, rebelliousness, pleasure-seeking and peer group influence may be considered as risk factors. Thus, it is concluded that the drug addicts differ significantly from the non-addicts in their psycho-social characteristics.

The identifying information was asked from both the addicts and non-addicts. While the information related to drug-addiction was only asked from 75 addicts out of 150 of the subjects recruited for the present study. The information collected from the addicts was also compared to the hospital record and found similar. There are certain important factors, which are shown by the drug addicts. Table 3 shows the types, easy availability and first experienced drugs. It was found that 53.33% addicts used both hashish and heroin while 13.33% & 20% used hashish and heroin respectively. 53.33% responded that both hashish and heroin are easily available while 69.33% first started hashish and then heroin. These findings suggest that hashish is a gateway drug to heroin and both are easily available. Research regarding hashish suggests that in our culture hashish is used as a traditional drug (Mohammad 1991), which is generally acceptable. A national survey on drug abuse in Pakistan (1986) has also found hashish as a gateway drug. The acceptance of hashish as a socially acceptable or traditional drug may be considered as one of the precipitating factor. In

our culture, the social tolerance to hashish use is quite high and so far hashish has not been taken seriously either by Government or any social organization. Our findings further show (Table 4) that 77.33% addicts were found in between the age group of 15-20 who first experienced drugs in this period. The average onset age for drug abuse was found to be 18.44 years. It indicates that our youngsters at the adolescence period are more vulnerable to addiction. It is the time of stress and storm, which needs a careful attention of parents in solving the adolescence problems. The prevalence at this age is more high as compared to the other stages.

REFERENCES

- Ahmed F. Z., & Shafi, K. (1990). Parental relationship and peer use of substance as psychosocial risk factors of heroin abuse in Pakistan. *Pakistan Journal of Psychology, 21*, 3-23.
- Aziz, S. (1991). *The role of some social and environmental factors in drug addiction among male university students*. Unpublished M. Phil. Thesis. Islamabad: National Institute of Psychology, Quaid-i-Azam University.
- Booth, G., & Gossop, M. (1976). Risk taking and drug dependence. *British Journal of Addiction, 71*, 269-274.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147.
- Brill, N. O., Crumpton, E., & Grayson, H. M. (1971). Personality factors in Marihuanan use. *Archives of General Psychiatry, 42*, 163-165.
- Chandrasegran, S. (1984). *Factors contributing to drug addiction among youths*. Paper presented at the 3rd Asian Workshop on Child and Adolescent Development, Kualalampur, Malaysia.
- Grossop, M., & Grant, M. (1990). *Preventing and controlling drug abuse*. Geneva: Wold Health Organization.
- Habib, F. (1984). *Psychological and social aspects of drug addiction: Reflection on drug abuse*. Proceedings of the workshop on Mass Media Orientation for the Presentation of Drug Abuse (pp. 57-80). Islamabad: Pakistan Narcotics Control Board.
- Hatterer, L. (1985). *Hard research strategies and soft clinical studies*. Proceedings of the 2nd pan pacific conference on drugs and

- alcohol. Hong Kong: Organizing Committee, the 2nd PPCDA, pp. 249-256.
- Hendlelr, H. I., & Stephens, R. C. (1977). The addict odyssey: From experimentation to addiction. *The International Journal of Addictions*, 12, 25-42.
- Hager, D. L. (1976). Adolescent drug use in Middle America: Social Psychological Correlates. In Austin, G. A., & Lettier, D. L., (Eds.). *Drug and personality*. Rockville: National Institute on Drug Abuse.
- Holinrak, J. B. (1979). *Dug abuse in Hong Kong*. Paper presented at the 10th Annual Convention of the Singapore Medical Convention.
- Hong, T. O., Boey, K. W., & Long, F. Y. (1989). *Drug abuse in Singapore: A psychosocial prospective*. Hillview Publication.
- Jurich, A. P., & Polson, C. J. (1984). Reasons for drug use: Comparison of drug users and abusers. *Psychological Report*, 55, 371-378.
- Kosviner, A., & Hawks, D. (1977). Cannabis use among British University students: II-Patterns of use and attitudes to use. *British Journal of Addiction*, 72, 41-57.
- Kamali, K., & Steer, R. A. (1976). Polydrug use by high school students: Involvement and correlates. *The International Journal of the Addictions*, 11(2), 337-343.
- Kandel, D. (1974). Inter-and intra-generational influence on adolescent marihuana use. *Journal of Social Issues*, 30, 107-135.
- Lindblad, R. A. (1977). Self-concept of white-middle socioeconomic status addicts: A controlled study. *The International Journal of the Addicts*, 12(1), 137-151.
- Lukoff, I. (1974). Issues in the evaluation of heroin treatment. In E., Josephson, & E. Corroll (Eds.) *Drug use: Epidemiological and sociological approaches* (pp. 129-157). New York: Wiley.
- Mohammad, A. A. (1991). *Cannabis abuse dependence among Afghan refugees*. Proceedings of the 8th International Conference of Pakistan Psychological Association (Vol. IV). Islamabad: PPA.
- Najma, N., & Farzana, M. (1990). Characteristics of drug addicts. *Journal of Behavioral Sciences*, 1(1), 31-38
- Nevadowsky, J. (1980). Pattern of self-reported drug use among secondary school students in Bendal state. *Nigeria Bulletin on Narcotics*, 33(1), 9-19.

- Prendergart, T. J. (1974). Family characteristics-associated with marihuana use among adolescents. *The International Journal of the Addictions*, 11(2), 337-343.
- Riggs, D. E. (1973). Students and drug use: A study of performance characteristics and extent of drug using behavior. *Canadian-Counselor*, 7(1), 9-15.
- Reed, T. E. (1972). A comparison of college students and narcotics addicts on a risky-cautious dimension. *The International Journal of Addiction*, 7(3), 493-510.
- Segal, B., Rhenberg, G., & Sterling, S. (1975). Self-concept and dug and alcohol use in female college students. *Journal of Alcohol and Drug Education*, 20(3), 17-22.
- Smart, R. G., & Whitehead, P. C. (1974). The use of an epidemiology of drug use: The Canadian scene. *The International Journal of the Addictions*, 9, 372-388.
- Stoessel. (1972). Exploration of the attitudes of students involved with drugs. In W. Kevp (Ed). *Drug use: Current concepts of research* (pp. 215-220). Springfield, Illinois: Charles C. Thomas.
- Scher, J. (1970). Patterns and profiles of addiction and drug abuse. In J. H. McGrath, & F. R. Scarpitti (Eds.), *Youth and drugs* (pp. 25-29). Glenview, Illinois: Scott, Foresman & Co.
- Tahir, M. (1993). *The personality profile of drug addicts*. Unpublished M.Phil. Thesis. Peshawar: Department of Psychology, University of Peshawar.

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