

# IMPACT OF POLY DRUG AND MONO-DRUG ON AGGRESSION AND EMOTIONAL DYSREGULATION AMONG SUBSTANCE USERS

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## ABSTRACT

### OBJECTIVE

to measure impact of Poly drug and Mono-Drug on Aggression and Emotional Dysregulation among Substance Users.

### STUDY DESIGN

Cross-sectional research design

### PLACE AND DURATION OF THE STUDY

This study was conducted in inpatient Department of Psychiatry and Behavioral Sciences Sheikh Zayed Medical College/Hospital, Rahim Yar Khan, from January 2018 to July 2019.

### SUBJECTS AND METHODS

Sample consists of 104 substance users, recruited through purposive sampling technique. Three scales were administered. Drug addiction scale was used to assess addiction and intensity of the drugs, Buss-perry aggression questionnaire to assess aggression level and difficulties in emotion regulation scale to assess emotional dysregulation of the participants. Data was entered and analyzed by SPSS 23.

### RESULTS

The current study result revealed that drug addiction has significant and positive impact on aggression ( $\beta = 4.89^*$ ,  $p = 0.14$ ) and emotional dysregulation has significant and positive impact on aggression ( $\beta = 127.24^{***}$ ,  $p = .000$ ) among drug users. Furthermore, drug addiction is significantly higher in poly drug users ( $M = 9.27$ ,  $t = -3.44^{**}$ ) as compared with mono-drug users ( $M = 9.27$ ) and overall aggression is also significantly higher in poly drug users ( $M = 123.83$ ,  $t = -26^{***}$ ) as compared with mono-drug users ( $M = 74.85$ ) and difficulty in emotion regulation was also high in poly drug users ( $M = 12.83$ ,  $t = -4^{***}$ ) as compared with mono-drug users. Our study has clinical, community and forensic implications.

### CONCLUSION

The results show the comparison of poly drug (alcohol + opium) and mono drug addiction and its effect on aggression and emotional dysregulation. This study shows that there is higher level of Emotion dysregulation and aggression in poly drug users as compare with mono drug. Findings of this study publicized that drug abuse is an accelerating problem in our country; it has negative effects of human behavior.

### KEY WORDS

Substance of abuse, Emotional health, Aggression.

## INTRODUCTION

Northern area of Pakistan from a long time is known for most of the Poppy cultivation. Opium had been in sale in licensed shops in the Indo-Pak subcontinent during the British rule. In 1947 there were approximately 100,000 regular and registered opium users in Pakistan<sup>1</sup>. The Islamic Revolution in Iran, the Soviet raid of Afghanistan and the implementation of Haddood Ordinance in Pakistan directly or indirectly affected the geopolitical situation in the country in 1979. According to Islamic law, the cultivation, production, delivery and sale of all substances like alcohol, charrs, opium and others were banned<sup>2</sup>. However, on the other hand at the same time the significant ratio in the production and consumption of such substances or drugs in Pakistan increased<sup>1</sup>.

The comorbidity of Substance use disorders and most prevalent psychiatric conditions such as depression, mania and psychotic disorders are common worldwide<sup>3</sup>. Due to lack of insight and its dependency, few persons with substance use disorders pursue management or treatment. The use of alcohol and opium is common. Substance use and aggressive behavior has a strong relationship and presents increasingly serious and an ongoing problem<sup>4</sup>.

Emotional dysregulation also has regularly been linked to alcohol and opium addiction<sup>5,7</sup>. There is a variety of sophisticated procedural methods which indicate that emotional dysregulation has also been linked with aggressive behavior and violation outside the role of aggression dysregulation due to addiction<sup>8,9</sup>.

A maladaptive pattern of substance use leading to clinically significant impairment or distress, whereas the person may also suffer from tolerance and withdrawal is described as addiction<sup>10</sup>, which causes aggression and emotional dysregulation. The use of poly drugs as like alcohol and opium is more commonly associated with aggressive behavior and emotional dysregulation as compare with mono drug<sup>11,12</sup>.

Emotional dysregulation includes several dimensions: non acceptance of emotional responses, limited access to emotion regulation strategies, impulsivity, lack of ability to engage in goal-directed behaviors, emotional awareness, and emotional clarity<sup>13</sup>. These six dimensions comprise the six subscales of the Difficulties in Emotion Regulation Scale<sup>14</sup>. It is suggested that

aspects of emotion dysregulation and aggression are common underpinnings of various psychological disorders including substance use problems, depression, and anxiety<sup>15</sup>. The had following objectives;

- To find out pattern of aggression and emotional dysregulation among poly substance and mono substance addicts.
- To find out impact of drug addiction on aggression and emotional dysregulation.
- To compare aggression and emotional dysregulation between polydrug addicts and mono-drug addicts.

## SUBJECTS AND METHODS

### Participants

Participants were registered mono and poly substance users in Sheikh Zayed Hospital. The sample size comprised of 104 substance users with age ranging from 16 to 65 years.

The present research employs cross sectional research design. In the present research purposive sampling technique was used for data collection.

### Instruments

**Drug Addiction Scale:** It is a self-developed scale consisting of 14 items, first 4 items are used for screening and other ten items for scoring. Each item has a response scale; Yes=0, No=1. Score ranges from 0 to 10 and is interpreted in four categories; none, mild, moderate and sever. The score 0 indicates None, 1-3 Mild, 4-6 Moderate and 7-10 severe.

**Buss-Perry Aggression Questionnaire (BPAQ):** The Buss-Perry Aggression Questionnaire developed by Buss and Perry in 1992 is a commonly used self-report measure of aggression. The Buss-Perry Aggression Questionnaire consists of 29 items and it is subdivided in four factors. 9 items measure physical aggression, 5 items measure verbal aggression, 8 items measure anger and 8 items measure hostility.

**Edinburgh Postnatal Depression Scale<sup>18</sup>:** It is a screening tool which measures the prenatal depression. This is a 10 item self-report questionnaire, it has four responses for each item.

**Difficulties in Emotion Regulation Scale:** This scale used to evaluate emotional dysregulation, it is multidimensional, comprising of 36 items, which contain six subscales. Items are evaluated on a 5-point Likert type scale extending from 1 ("never") to 5 ("quite often"). In present examination, we utilized the DERS add up score to demonstrate a worldwide composite of feeling of dysregulation (Gratz & Romemer, 2004).

### Procedure

Ethical permission was sought from concerned competent authority. Reference letter was shown to the concern authorities of Sheikh Zayed hospital and permission to start research work was taken. Only registered poly drug and mono drug users who were taking alcohol and opium were selected after informed consent. Three

questionnaires were given to the clinical population and they were instructed to fill the instruments along with demographic sheet. Every respondent was rated based on instruction are provided. SPSS was used to analyze the results on t test and analysis of variance.

## RESULTS

A self-developed scale used in this study had showed that Cronbach's Alpha was 0.772 that showed good reliability. Buss Perry aggression scale used for measure the level of aggression showed this was reliable scale for the target population. The Cronbach's Alpha value was 0.913 that hints high reliability. DERS used to measure Emotional dysregulation showed Cronbach's Alpha to be 0.762 that is good reliability.

Table 1 shows poly drug and mono drug's comparison in terms of drug addiction, aggression, and emotional dysregulation. Result shows that aggression (Physical aggression, Verbal aggression, Anger and Hostility) was higher in poly drug users as compared with mono drug users. Difficulty emotion regulation (Non-accepted, Goal, Impulse, Awareness, Strategies and Clarity) was also high in poly drug users as compared with mono drug users.

Table 2 shows comparison of drug addiction, aggression, and emotional dysregulation among drug usage wise. Result showed that aggression (Physical aggression, Verbal aggression, Anger and Hostility) was higher in combination of drugs as compared with only alcohol or only Opium consumption. Likewise, Difficulty in emotional regulation (Non-accepted, Goal, Impulse, Awareness, Strategies and Clarity) was also high in combination of drugs as compared with only alcohol or only Opium consumption.

The current study result revealed that drug addiction has significant and positive impact on aggression ( $\beta = 4.89^*$ ,  $p = 0.14$ ) and emotional dysregulation has significant and positive impact on aggression ( $\beta = 127.24^{***}$ ,  $p = .000$ ) among drug users.

**Table 1**  
Independent sample t-test utilized for drug wise comparison of drug addiction, aggression, and emotional dysregulation

Variable	Mono drug (n = 52)	Poly drug (n = 52)	t	95%CI	
	M (SD)	M (SD)		LL	UL
Drug Addiction	8.44 (1.53)	9.27 (.79)	-3.44**	-1.30	-.350
Overall aggression	74.85 (10.05)	123.83 (8.55)	-26***	-52.6	-45.3
Physical aggression	26.21 (4.76)	37.40 (4.61)	-12***	-13.0	-9.36
Verbal aggression	11.88 (1.75)	19.96 (2.52)	-18***	-8.92	-7.23
Anger	16.02 (2.88)	30.56 (2.55)	-27***	-15.5	-13.4
Hostility	20.73 (4.61)	35.90 (3.55)	-18***	-16.7	-13.5
Difficulty emotion regulation	117.94 (9.26)	123.83 (5.08)	-4***	-2.97	-8.79
Non-accepted	21.00 (3.26)	22.04 (1.96)	1.96	-.009	2.08
Goal	17.65 (1.99)	18.40 (1.27)	2.28*	.098	1.40
Impulse	20.13 (1.83)	24.10 (2.97)	-8***	-4.92	-2.99
Awareness	12.17 (2.29)	20.48 (1.56)	21***	7.54	9.07
Strategies	26.10 (2.10)	27.48 (2.86)	-2.8**	-2.36	-.406
Clarity	15.54 (2.57)	16.67 (1.93)	2.53*	.248	2.02

Note. CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit, df = 102

**Table 2**

One-way ANOVA utilized for frequently drug usage wise comparison of drug addiction, aggression, and emotional dysregulation

Variable	Alcohol (n=29)	Opium (n=23)	Alcohol + Opium (n=52)	F	Sig
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		
Drug Addiction	8.28 (1.64)	8.65 (1.40)	9.27 (.79)	6.54**	.002
Overall aggression	79.28 (10.77)	69.26 (5.29)	123.8 (8.55)	423***	.000
Physical aggression	29.00 (3.94)	22.70 (3.11)	37.40 (4.61)	109***	.000
Verbal aggression	12.14 (1.88)	11.57 (1.56)	19.96 (2.52)	180***	.000
Anger	16.86 (3.28)	14.96 (1.87)	30.56 (2.55)	393***	.000
Hostility	21.28 (5.52)	20.04 (3.11)	35.90 (3.55)	177***	.000
Difficulty emotion regulation	123.48 (5.69)	124.26 (4.27)	129.94 (9.26)	454***	.001
Non-accepted	21.97 (1.97)	22.13 (1.98)	22.54 (3.26)	1.93	.149
Goal	18.48 (1.24)	18.30 (1.32)	21.65 (1.99)	7.51	.075
Impulse	19.93 (1.96)	20.39 (1.67)	24.10 (2.97)	33.3***	.000
Awareness	20.55 (1.74)	20.39 (1.34)	22.17 (2.29)	897***	.000
Strategies	25.97 (2.07)	26.26 (2.17)	27.48 (2.86)	25.4*	.021
Clarity	16.59 (2.02)	16.78 (1.85)	17.54 (2.34)	16.98*	.043

Note. Calculate at 0.05 significance, \* sig.  $\leq 0.05$ , \*\* sig.  $\leq 0.01$ .

\*\*\* sig.  $\leq 0.001$ ,  $df = 2$

## DISCUSSION

Drug addiction (whether it is mono or poly drug addiction) is a major problem in all over the world including Pakistan. This problem is increasing day by day and has become a major problem worldwide, as well as in Pakistan<sup>16</sup>. Pakistan is a Muslim country and majority of Pakistani population is Muslim, being Muslim Pakistanis follow religious and ritual values. These people showed to follow Islamic and cultural norms and values. All substances of abuse are publicly despised in Pakistani culture, also in their religion. Usage of drugs consider harmful and known to be prevalent among people<sup>17</sup>. Government does warranting determinations to increase awareness about harmful effects of drugs and to change attitudes of people and prevention of the addiction in Pakistan<sup>18</sup>.

The aim of the current study is to examine the impact of poly substance (alcohol+ opium) and mono substance (alcohol or opium) on aggression and emotion dysregulation. It was a male only study, findings showed that there were 29 (27.9%) alcohol addicts and 23 (22.1%) were opium users while 52 (50%) were both alcohol and opium addicts and these findings are consistent with previous literature<sup>19,20</sup>.

The findings of the present study shows that the aggression and emotional dysregulation was significantly higher in poly drug addicts as compare with mono drug addicts. These results are in line with previous studies<sup>21</sup>. Present research indicates that alcoholics experienced higher rate of emotional dysregulation and aggression as compared with opium addicts. The abuse of alcohol is constantly

linked with emotional dysregulation and aggression. The abuse of alcohol and other drugs (opium) both cause emotional dysregulation and emotional dysregulation relatively effect on aggression or maybe cause to increase the level of aggression, these finding are supported by previous researches<sup>3,22</sup>.

## CONCLUSION

The result of present study indicated that the aggression and emotion dysregulation was significant higher in poly drug addicts as compare with mono drug addicts. High levels of aggression and emotional dysregulation among alcoholics as compare with opium users were also revealed. Findings of this study publicize that drug abuse is a major problem in our country; whether the use is restricted to mono drug or poly drug both have negative effects on human behavior.

## LIMITATIONS

In this study there are some limitations which must be pointed out. Sample was taken only from Sheikh Zayed hospital, Rahim Yarn Khan which limited the generalizability of study findings.

## RECOMMENDATIONS

Substance abuse is very harmful and known to be prevalent among people, there is need to increase awareness about harmful effects and to change attitudes as high bad effects of poly substance and mono substance on aggression and emotion dysregulation have been found. There is a need to identify the causes of addiction. It is suggested that awareness of the adverse effects of drugs and the moral/ religious implications of substance abuse should be propagated as it is more likely to have a positive impact. There is lack of health promotion programs in Rahim Yar Khan, the health system needs more progress for the prevention of drug addiction and efforts for drug free society. It is suggested that a strong family support system can provide a psychological strength to addicts to get rid from addiction and guaranteeing reduction in substance addiction threats. It is also suggested that there is a strong need of drug rehabilitation centers for prevention and treatment of addiction in Pakistan.






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