

# **Increasing family satisfaction and decreasing hashish use. A new application of general systems concepts via Human Systems Therapy.**

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## **Introduction**

There has been a lot of research on factors of family dissatisfaction related to adolescents' illegal drug abuse (Schneider et al. 1977, Selnow 1987, Kokkevi and Stefanis 1988, Lambraki 1993).

It has been shown a direct relation of low family satisfaction with hashish abuse together with high satisfaction from other substance use (Katachanakis et al. 2009) and Human Systems Therapy (HST) found that can significantly reduce hashish abuse in adolescents, by improving family and peer relations (Kilaidakis et al 2010).

## **Hypotheses**

Considering Kilaidakis' (2010) and Katachanakis' (2009) findings, we make the hypotheses that reduction of hashish abuse will be related with increase in family satisfaction.

## **Aim**

The aim of the work is to use Human Systems Therapy (HST) (Paritsis 1989b, 2006, 2010) in order to test the above hypothesis.

## **Sample**

The sample comprised of 15 hashish abusers students from a Technical School on the island of Crete, Greece.

The Experimental group included 8 hashish abusers, and the control group included 7 hashish abusers

The 15 hashish abusers were randomly mixed with equal number of non abusers, although the intervention was attributed only to the hashish users

## **Measurements**

The 1st assessment took place before the beginning of the intervention.

The 2nd assessment took place three months after the last intervention.

The number of sessions was 8, one session per 15 days.

## **Questionnaires**

The questionnaires used were as follows:

- Family Satisfaction scale (Olson et al. 1992), which includes "Family cohesion" subscale and (b) "family adaptability" subscale :
- "Last month experience of hashish (even once)"
- "Smoking"
- "Consumption of alcohol during the last month",
- "Use of other illegal substances"

As confounding factors the variables “Gender”, “age”, “socio-economic status” were used.

### Statistical analysis

The variables were first tested for normality. Quantitative variables are expressed as mean  $\pm$  standard deviation. Then the Wilcoxon signed rank test was used to evaluate any possible differences in baseline and follow-up measurements. Additionally Fisher’s exact tests were used for the comparison of proportions and in order to test a possible significant difference between experimental and control group after intervention. The p values reported are two tailed. Statistical significance was set at 0.05 and analysis was conducted using SPSS statistical software (Version 17)

### Results

A, The Sample characteristics are shown in table 1, where we notice no significant difference between experimental and control group for

- (a) Age
- (b) Gender
- (c) Parental socio-economic status (e.g. paternal and maternal education). and
- (d) Family satisfaction (low score of family satisfaction and high score of family satisfaction)

]Table 1. The Sample characteristics

	Exper. group	Control group	p
Age, mean $\pm$ SD	17.0 $\pm$ 1.0	17.0 $\pm$ 1.0	0.798**(student t test)
Male	5(62.5)	4(57.1)	1.000*(Fisher exact test)
Female	3(37.5)	3(42.9)	
Pat Primary education	3(37.5)	0(0.0)	0.200*
Pat High School and /or higher educ	5(62.5)	7(100.0)	
Mat Primary education	1(12.5)	1(14.3)	1.000*
Mat High School and /or higher educ	7(87.5)	6(85.7)	
Low score of FS	4(50.0)	5(71.4)	0.608*
High score of FS	4(50.0)	2(28.6)	

B. Wilcoxon signed rank test did not show on Family cohesion, Family adaptability and Family satisfaction scales significantly decreased scores in both, control and

experimental group. However, if we triplicate the sample, the differences before and after intervention will be as follows :

- Family cohesion: Control group  $p=0.792$ , Experimental group  $p=0.031$
- Family adaptability: Control group  $p= 0.511$ , Experimental group  $p=0.035$
- Family satisfaction: Control group  $p=0.958$ , Experimental group  $p=0.034$

There is significantly differences on family satisfaction scales in the experimental group

C. The results of Fisher's exact test on low score of family satisfaction and high score of family satisfaction, between experimental and control group before and after the intervention are in table 2

Table 2. The Chi Square of the low and high score of family satisfaction between experimental and control group before and after the intervention

Before intervention			
	Experimental group	Control group	p
Low score of FS	4(50.0)	5(71.4)	0.608
High score of FS	4(50.0)	2(28.6)	
After intervention			
	Experimental group	Control group	p
Low score of FS	1(12.5)	5(71.4)	0.041
High score of FS	7 (87,5	2 (28,6	

In table 2 we can see that the family satisfaction score of hashish abusers significantly increased only in the experimental group after the intervention

### Discussion

Family Satisfaction scales using Wilcoxon Signed rank test was decreased more in the experimental group but not at a significant level. However, the results after triplication of the sample showed that Family Satisfaction scales had statistically significantly differences only in the experimental group after the intervention

Furthermore, family satisfaction score using Fisher's exact test was significantly increased after the intervention only in the experimental group.

From the above it follows that there is an indication that family satisfaction improved in the experimental group after the intervention and that HST is able to do so.

It is interesting to note that we succeeded in changing family satisfaction without intervening directly among family members but through individual group HST intervention.

## References

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