

# Gender differences in psychoactive substances abuse of workers

S Galal\*, A.Mahmoud, S Abdel Rahman, K Salem

\*Prof. of Public Health and Medical Sociology  
former WHO officer

XXVII. MWIA International Congress Münster, Germany,  
27-31.July 2010

# Purpose of this study

- To explore the pattern of substance abuse and related factors in women and men workers in industries in Cairo

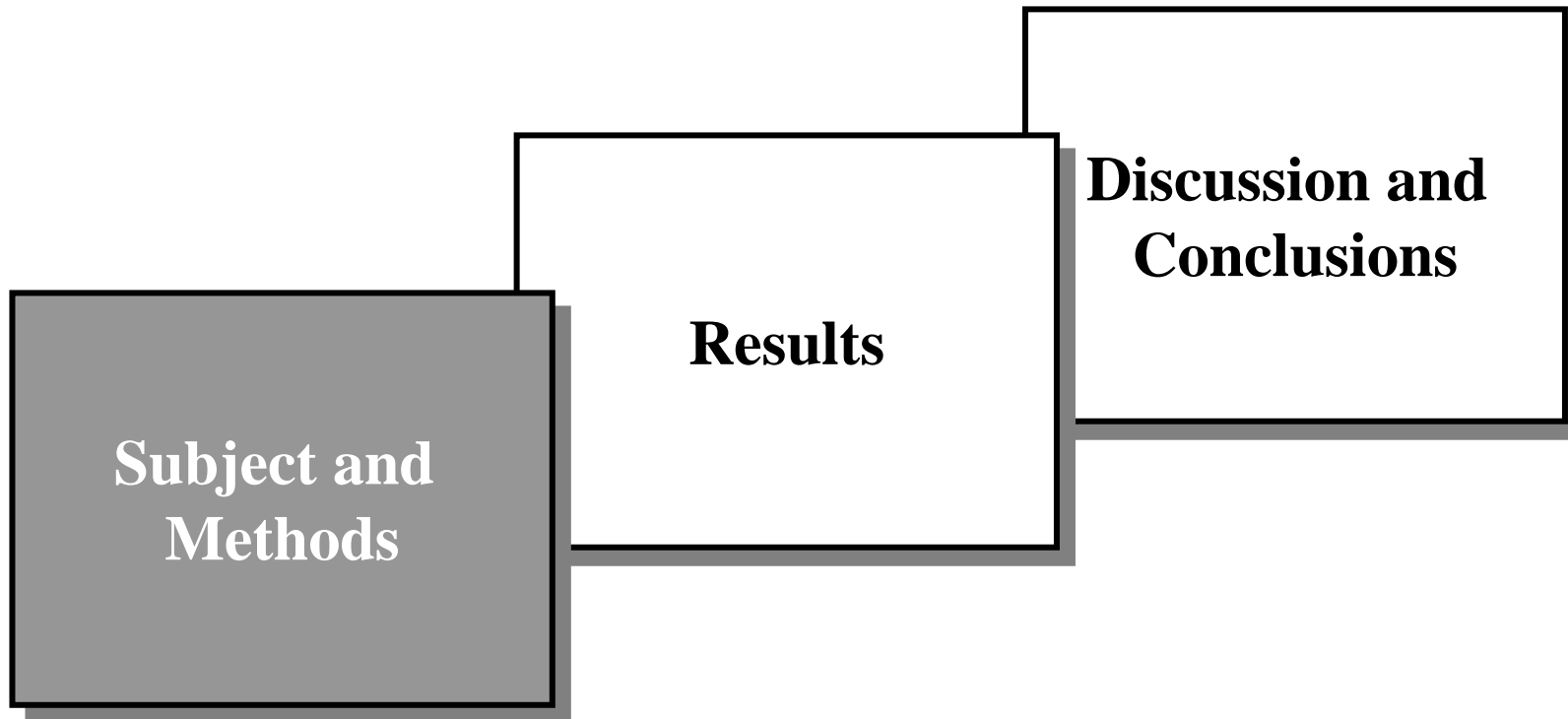
# Background to this presentation

- Psychoactive substances abuse affects all societies. UN estimates 185 million people worldwide to use illicit drugs (WHO,2009).
- Egypt's National Council for Fighting and Treating Addiction (NCFTA) study (2007) indicates that 8.5% of the population are drug addicts.
- 11% of the labor force in Egypt are working in industries; women make only 9% of them

## (cont.)Background

- This study was done in the some industries of Cairo by the Community and Industrial Medicine Department at the Faculty of Medicine (F) Al-Azhar Univ. in collaboration with the Psychologist and funded by the National Academy for Research and Technology in Egypt

# Outline of this presentation



# Subjects and methods



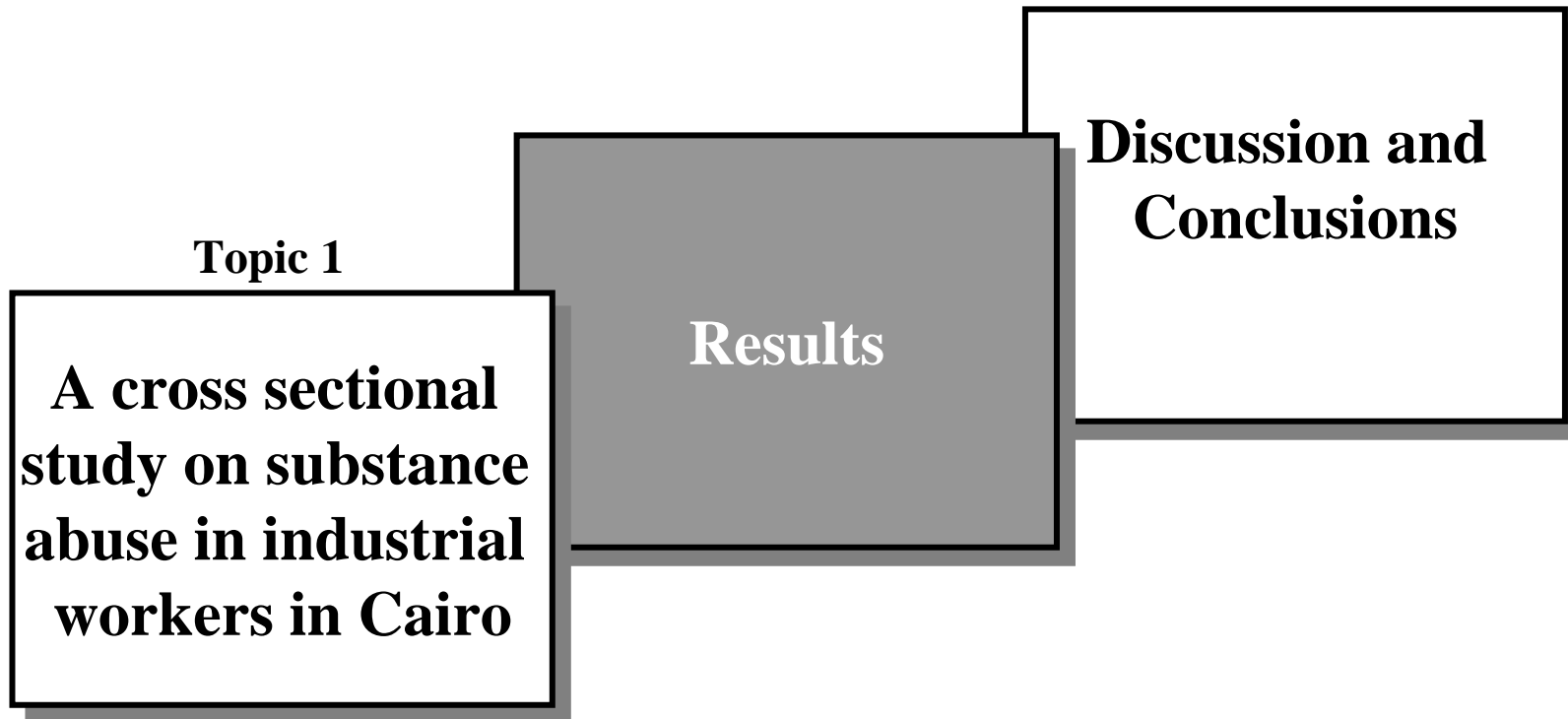
- A multi-stage stratified random sample of 1276 - making 15% - of workers in heavy (36.8%), middle (19.9%) and light industry (43.3%) in Cairo was taken to assess substance use.
- Substance abuse was categorized according to WHO
  - tobacco,
  - psychotropic drugs (sedatives, tranquilizers, hypnotics, stimulants, anti-allergic)
  - natural drugs (cannabis, opiate, etc.) and
  - alcohol

# Subjects and methods



- The questionnaire included beside characteristics of the subjects, history of substance abuse, intake patterns, and personality traits measures
- Depression (0.76) , psychic tension (0.73) , neuroticism (0.82), assertiveness (0.54) , and hostility (0.65) scores (0 - 18) were assessed (Eysneck, Farquhar,..), The split half reliability test of the scores ranged between  $r=0.54$  and  $r=0.82$
- A pilot study of 50 workers was done.
- Statistical analysis was done with EPI.

# Outline of this presentation



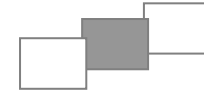


# Characteristics of the workers' sample



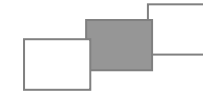
- 66% were male and 33% female workers
- The age of the sample ranged between 16 and 60 years (mean 37.7 years), the mean age of male workers was 38 years and of female 37.3 years
- 84.7% of male and 65% of female workers were married, while 11.2% of male and 22% of female workers were single
- 86% of male and 98% of female workers lived in Cairo while the rest commuted from outside

# Illiterates are more prone to drug use



- Residence: no difference was found between users and non-users with regard to residence in Cairo or outside
- Education: Illiterate percentage was significantly higher in drug user than in non-user
- Marital status: no significant difference between married, single, widowed and divorced regarding drug use
- Mean Age: No significant difference was found between users and non-users in males, however older females are more in drug users

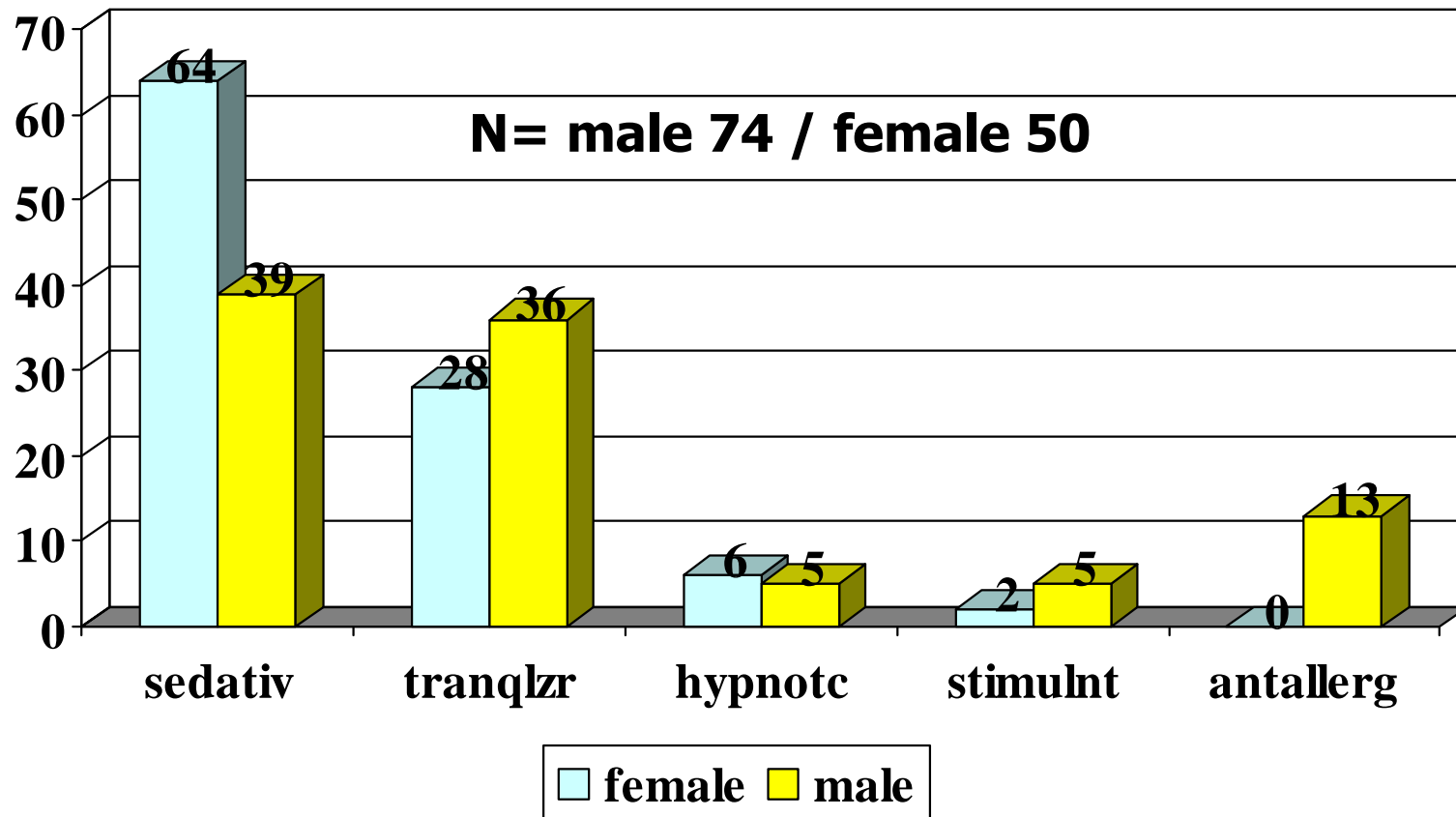
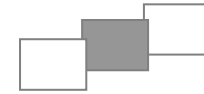
# Distribution of psychoactive substance use by gender



	<b>Female workers</b>		<b>Male workers</b>	
	N=409	%	N=864	%
<b>Smokers</b>	8	1.9	519	60.1
<b>Psychotropic drugs</b>	50	12.3*	74	8.6
<b>Natural drugs</b>	1	0.2	58	6.7
<b>Alcohols</b>	2	0.4	35	4.0
<b>No drug use</b>	350	85.6	311	35.9

S G 010,

# Percent of psychotropic drugs users by gender - women use significantly more sedatives than men

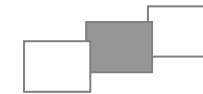


# Female users and non-users of drugs show difference in hostility scores



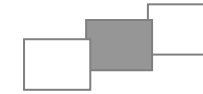
Mean score of	Female workers		t-test
	Non-users	Drug users	
Psychic tension	2.04 $\pm$ 0.67	2.15 $\pm$ 0.69	2.3 p=0.1
Depression	2.36 $\pm$ 0.8	2.3 $\pm$ 0.8	0.36 p=0.58
Assertiveness	2.9 $\pm$ 0.7	2.95 $\pm$ 3.2	0.02 p=0.9
<b>Hostility</b>	2.23 $\pm$ 0.6	2.07 $\pm$ 0.57	<b>7.4</b> p=0.00
Neuroticism	2.1 $\pm$ 0.67	2.18 $\pm$ 0.68	0.4 p=0.5

# Tension, depression, neuroticism or assertiveness scores are higher in male drug user than non-user



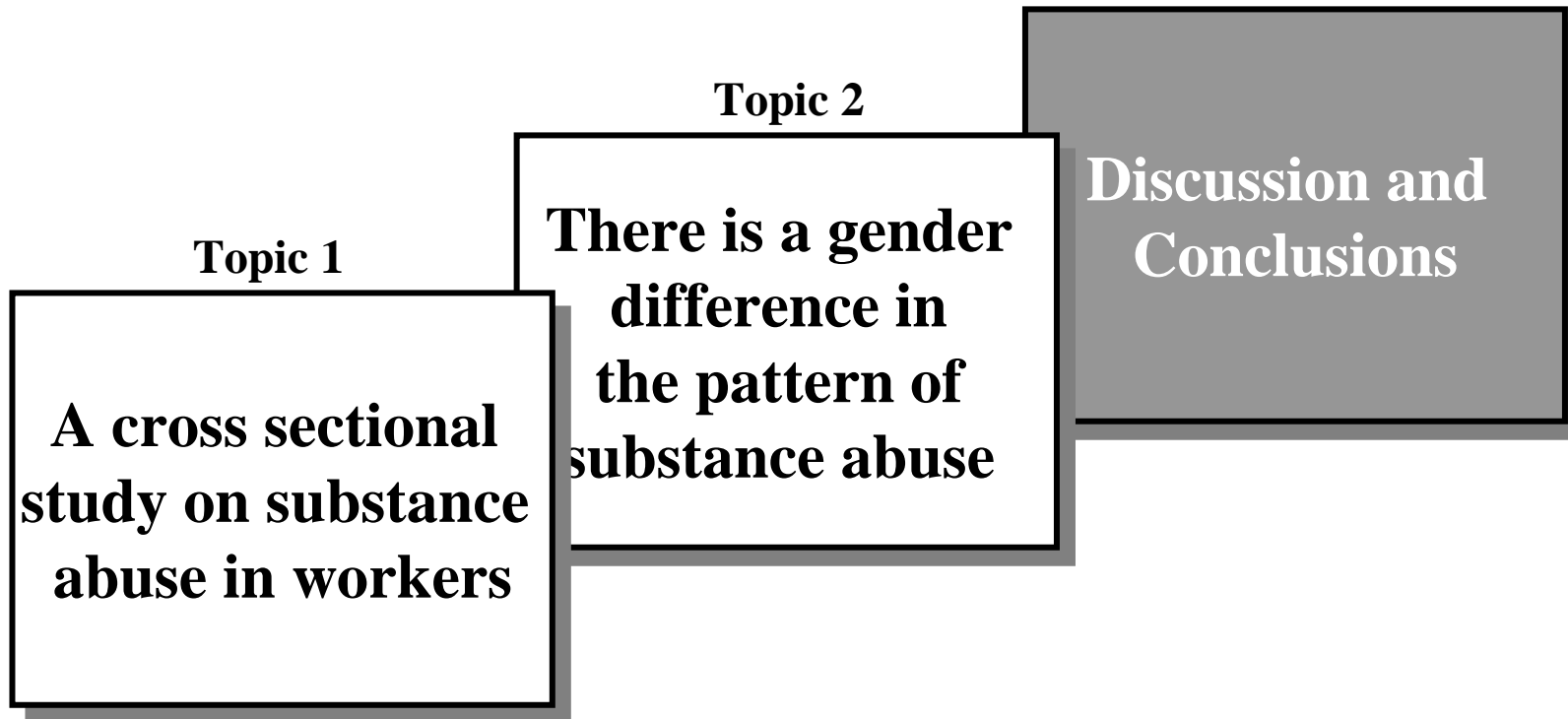
Mean score of	Male workers		T-test
	Not using	Drug user	
Psychic tension	1.78 ± 0.65	2.03 ± 0.76	26.1 p=0.00
Depression	2.05 ± 0.8	2.19 ± 0.87	6.26 p=0.01
Hostility	2.06 ± 0.65	2.06 ± 0.67	0.00 p=0.9
Assertiveness	3.2 ± 1.7	3.7 ± 3.2	7.76 p=0.00
Neuroticism	2.07 ± 0.68	2.19 ± 0.69	7.7 p=0.00

# Regression model in male and female workers differ



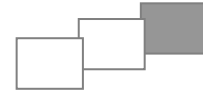
	<b>Male</b> partial F	<b>Female</b> partial F
age	0.8	9.6
marital status	1.6	0.03
education	0.2	3.5
depression	0.3	3.2
tension score	18.7	4.8
assertiveness	10.7	0.3
neuroticism	0.1	1.5
hostility	2.3	4.7

# Outline of this presentation



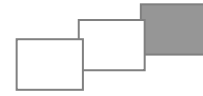


# Female workers use socially accepted psychoactive substances



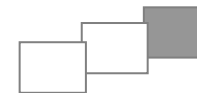
- Psychoactive substance abuse is culturally bound; in Egypt alcohol is socially not acceptable for all, smoking is for men
- 1.9% of female workers smoke compared to 60.1% of male; culturally, smoking is related to masculinity and stigmatised in females.
- Excluding smoking: female workers (12.3%) consume psychotropic drugs especially sedatives significantly more than male (8.6%) workers. Women cope with their socially accepted role in drug abuse

## Personality traits are associated with drug use in male workers



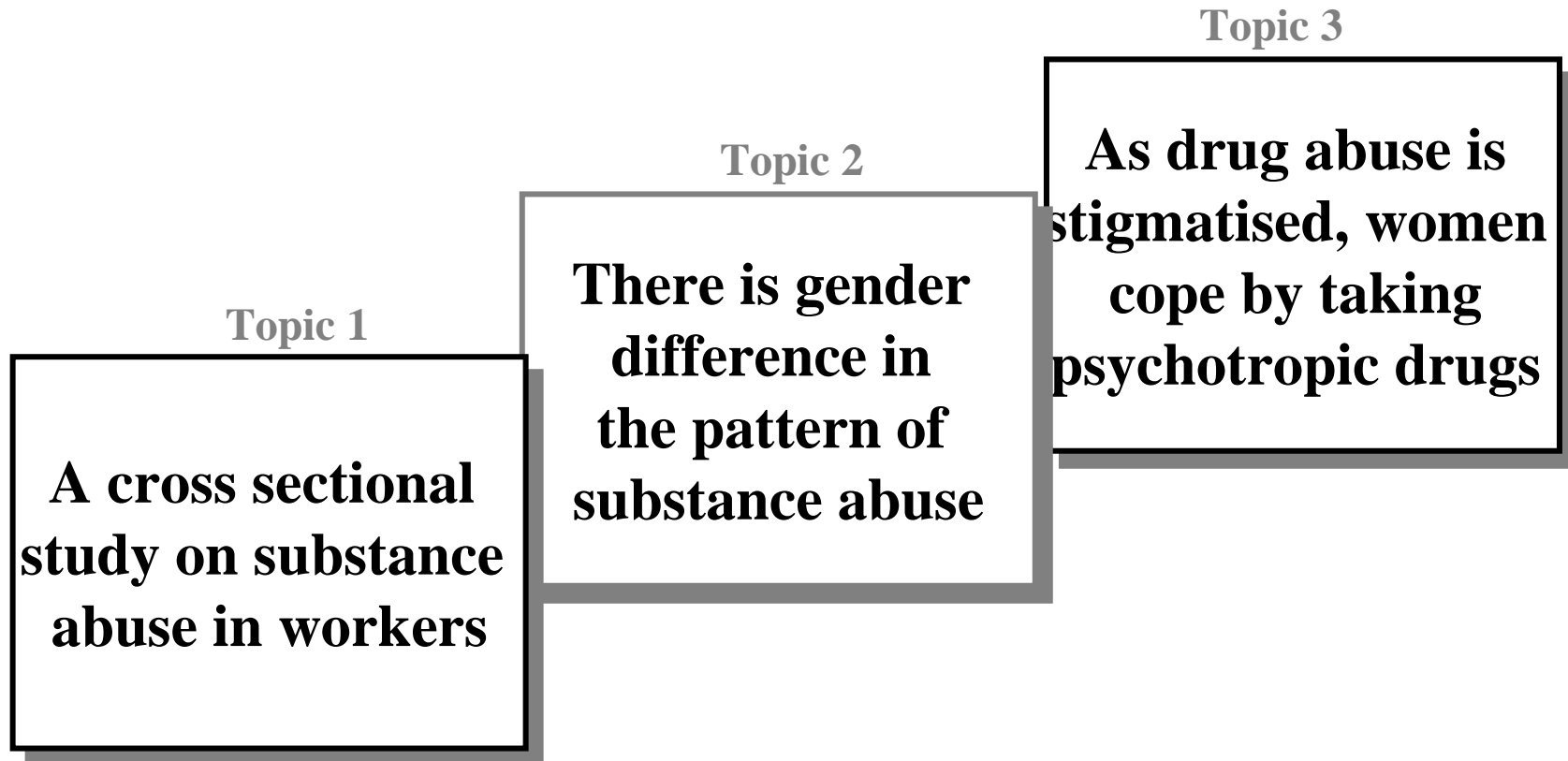
- A lot of psychotropic drugs are still sold over the counter without prescription, which make the main bulk of substance abuse.
- Taking natural drugs (6.7%) such as cannabis is illegal but socially tolerable for men; it is more stigmatised in women than men. This is less than in the national survey.

# Old age, illiteracy, hostility and tension affect substance use in female workers



- **The personality trait measurements are low (psychic tension, depression, hostility, assertiveness, depression) in male and female workers.**
- Male drug users have higher scores in tension, depression, assertiveness and neuroticism than non- users. Does drug use affect personality traits or the other way round?
- **Tension, assertiveness and being divorced / widowed affect drug use in male workers.**
- Old age, illiteracy, tension and hostility affect substance /psychotropic drug use in female workers

# In summary



# Next steps

- Further studies are needed to clarify whether taking psychotropic drugs is perceived as drug addiction
- Psychotropic drugs make a bulk in drug use and need to be under control by the authorities / pharmacies
- Egypt's NCFTA needs to adopt a new strategy to differentiate between women and men for prevention and control of substance abuse