Risultati dello studio internazionale EU-GEI: correlazione tra genere, storia migratoria e caratteristiche psicopatologiche dei pazienti al primo episodio psicotico

Ilaria Tarricone, Maria Galatolo, Lorenzo Pelizza

Alma Mater Studiorum - Università di Bologna

lorenzo.pelizza@unibo.it

DISCLOSURE INFORMATION

LORENZO PELIZZA

Dichiaro che negli ultimi due anni non ho avuto rapporti di finanziamento con soggetti portatori di interessi commerciali in campo sanitario

Disclosure

Outlines

1. Differenze epidemiologiche, cliniche e di risposta al trattamento dei disturbi mentali tra uomini e donne.

   Focus sulla schizofrenia

2. Differences in gender, migration and first episode of psychosis: the results of the EU-GEI study.

Differenze di incidenza, prevalenza ed età di esordio dei disturbi mentali tra uomini e donne

Table 5.1 Lifetime risk of mental disorders, odds ratios women/men (OR)

Mental disorder	Number of countries	All-country OR
Mood disorders	15	1.9
Major depressive disorder	10	1.9
Dysthymic disorder	6	0.9
Bipolar disorder	15	1.8
Any mood disorder		
Anxiety disorders	12	1.9
Panic disorder	15	1.7
Generalized anxiety disorder	8	2.0
Agoraphobia	13	1.3
Social phobia	12	2.0
Specific phobia	4	1.6
Separation anxiety disorder	14	2.6
Posttraumatic stress disorder	15	1.7
Any anxiety disorder		
Externalizing disorders	5	0.6
Attention-deficit/hyperactivity disorder	3	0.5
Conduct disorder	6	0.7
Intermittent explosive disorder	3	0.8
Oppositional defiant disorder	12	0.7
Any externalizing disorder		
Substance disorders	15	0.2
Alcohol abuse	11	0.3
Alcohol dependence	5	0.4
Drug abuse or dependence	14	0.3
Any substance disorder		
Any disorder	15	1.1

Published in final edited form as:
Arch Gen Psychiatry. 2009 July ; 66(7): 785–795. doi:10.1001/archgenpsychiatry.2009.36.

Cross-national associations between gender and mental disorders in the WHO World Mental Health Surveys

Soraya Seedat, PhD[1], Kate Margaret Scott, PhD[2], Matthias C. Angermeyer, PhD[3], Patricia Berglund, MBA[4], Evelyn J. Bromet, Ph.D.[5], Traolach S. Brugha, MD (NUI), FRCPsych[6], Koen Demyttenaere, MD, PhD[7], Giovanni de Girolamo, MD[8], Josep Maria Haro, MD, MPH, PhD[9], Robert Jin, MA[10], Elie G. Karam, MD[11], Viviane Kovess-Masfety, MD, PhD[12], Daphna Levinson, PhD[13], Maria Elena Medina Mora, PhD[14], Yutaka Ono, MD, PhD[15], Johan Ormel, PhD[16], Beth-Ellen Pennell, MA[4], Jose Posada-Villa, MD[17], Nancy A. Sampson, BA[10], David Williams, PhD, MPH[18], and Ronald C. Kessler, PhD[10]

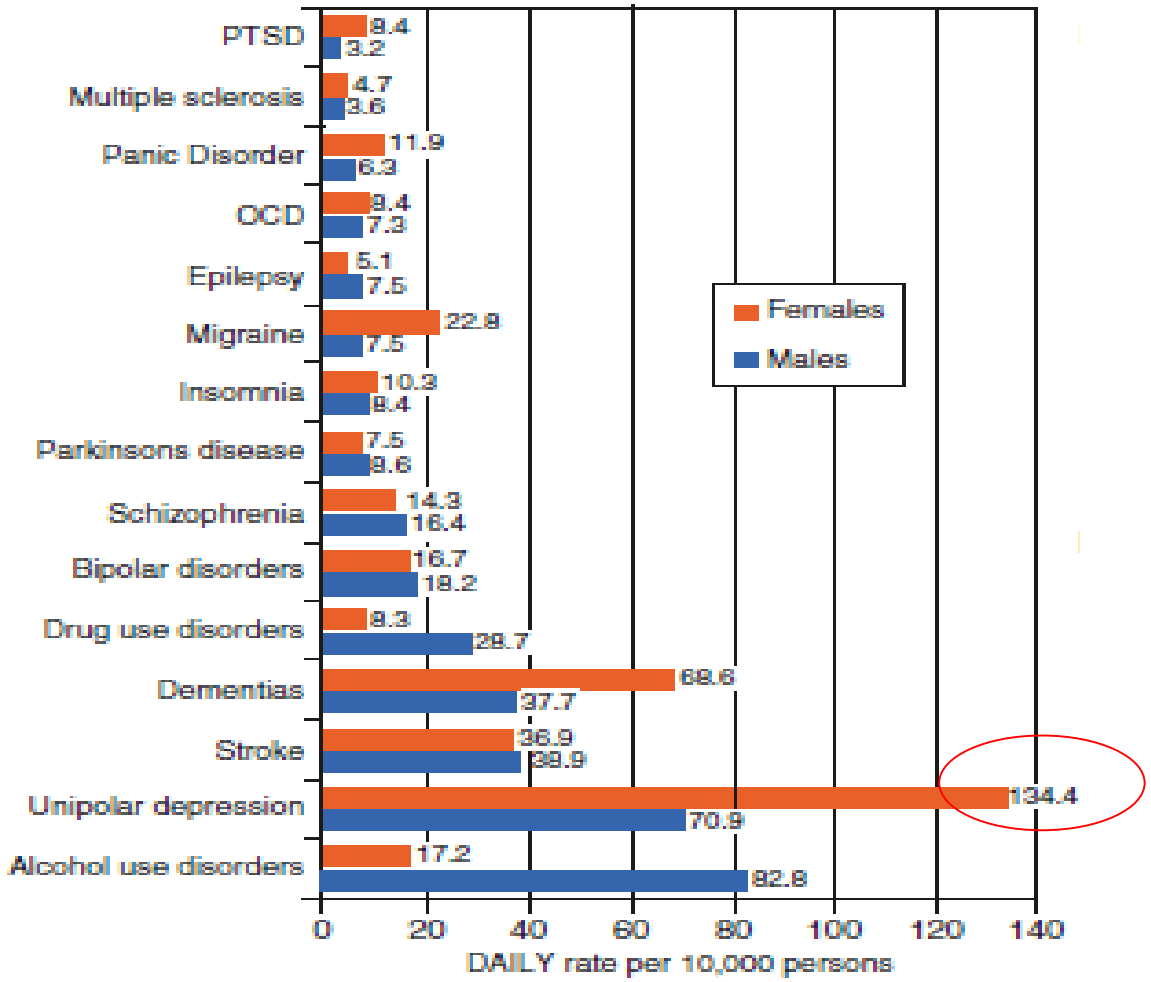


Fig. 5.1 Summary of DALY* estimates
*Disability adjusted life years: number of years lost du
Reprinted from Wittchen HU et al. The size and burden
the brain in Europe 2010. Eur Neuropsychopharmacol. 2(
with permission from Elsevier

Differenze nei fattori di rischio e di protezione per i disturbi mentali tra uomini e donne

Fattori biologici

- Genetici
- Ormonali

Fattori psicosociali

Ormoni sessuali

Estrogens and testosterone strongly **affect brain** development during gestation, in the early postnatal period, and around puberty.

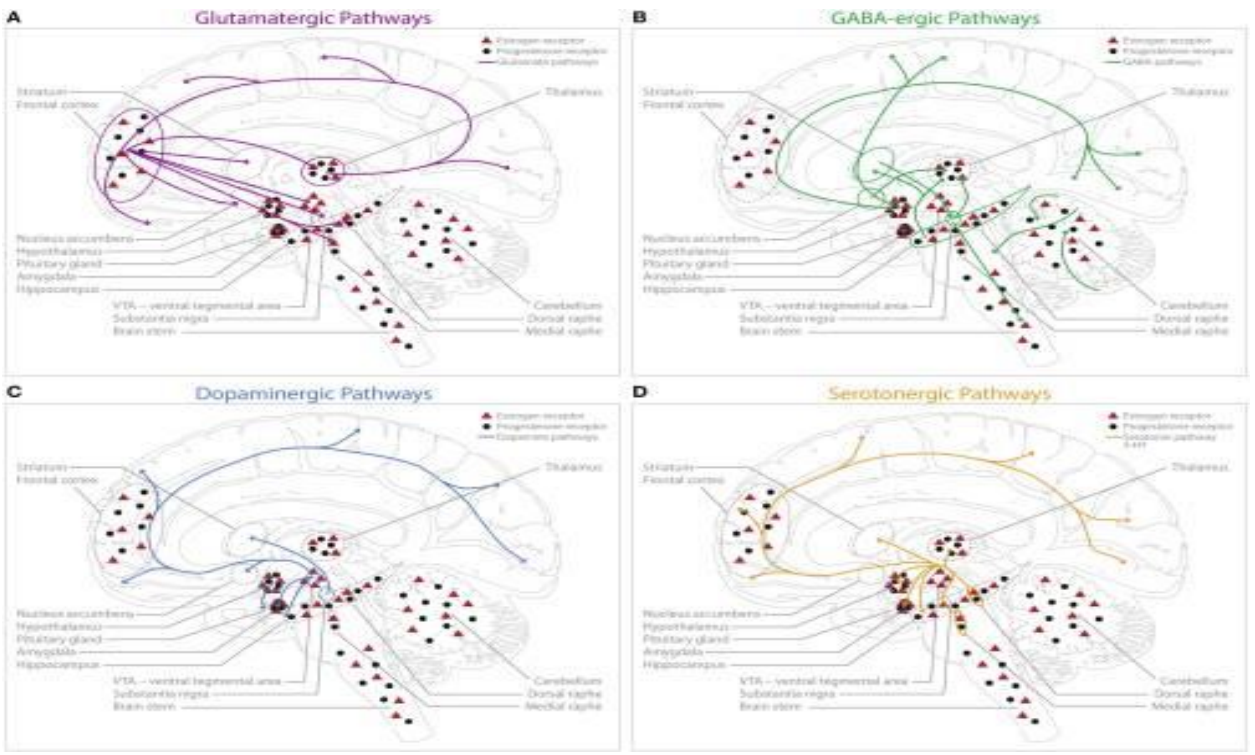
The most active in the brain, **17-β-estradiol**:

- promotes neuronal sprouting and myelination,
- enhances synaptic density and plasticity,
- facilitates neuronal connectivity,
- acts anti-inflammatory and as an antioxidant, inhibits neuronal cell death, and improves cerebral blood flow and glucose metabolism.

Estrogeni

Circulating **estrogens** modulate many **neurotransmitter systems** relevant to mental disorders, such as the dopaminergic, serotonergic, glutamatergic, noradrenergic, and cholinergic systems.

Estrogen receptors are expressed in several areas of the human brain that are associated with emotion, memory, and cognition



Fattori Psicosociali

- Socializzazione precoce e stile di coping
- Stato e ruolo sociale
- Dipendenza, molestie, violenza
- Illness behavior

STRESS PSICOSOCIALI

ESTROGENI

Gender inequality

Women live longer but spend fewer years in good health and there are specific underlying **causes** that partially arise from gender inequality.

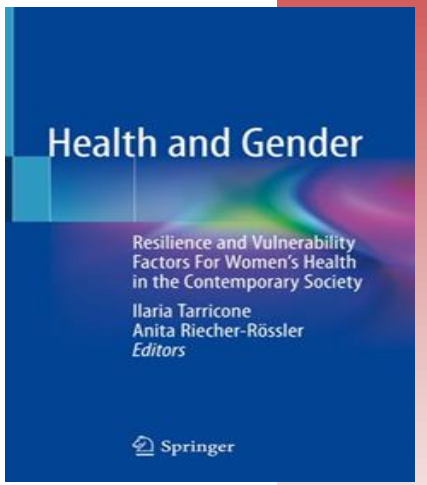
Gender role conflicts, total workload, lower occupational and social status, and unpaid work have adverse effects on women's wellbeing and long-term health, as well as career development. The inactivity rate of women is double that of men (30% vs. 17%).

Gender inequalities accumulated over the life-course expose older women in particular to **poverty** and **social exclusion** … and barriers to healthcare (**EuroHealthNet**, 2017) .

Vulnerability and Protective Factors for Mental Health: A Rereading in Gender Perspective

5

Anita Riecher-Rössler



Key Points

- Sex and gender are increasingly recognized as important factors influencing mental health, since both are associated with specific vulnerabilities, risk, and protective factors.
- As regards "sex" on the biological side, it is mainly the female sex hormone estradiol which seems to have various protective effects.
- Regarding "gender" on the psychosocial side, men and women seem to have different vulnerabilities and a different distribution of risk factors mainly due to "gender-typical" socialization and behavior, differing social roles and gender role stereotypes, but also due to factors like gender-based violence, abuse or discrimination.
- Taking these influences into account could, on the one hand, help to better understand the pathogenetic processes leading to mental disorders with marked gender differences in incidence and prevalence, such as depression or anxiety disorders.
- On the other hand, it could improve our diagnostic processes and therapies, making them more gender-sensitive in the sense of a more personalized medicine.

Genere e schizofrenia

Schizophrenic psychosis, potentially severe psychiatric disorders that affect around 0.5-1.0% of the worldwide population , have been described to have gender-related differences related to illness incidence, mean age at onset, clinical presentation, course, and response to treatment.

Biological processes (mainly neurodevelopmental ones) and social factors are both implicated on gender differences in schizophrenia course and outcomes.

Schizofrenia: genere e differenze epidemiologiche

Men show an incidence peak in their early twenties (between **18–25 years** of age) while the peak for women' occurs a few years later (between 25–35 years of age).

Until the mid-thirties, rates are estimated to be approximately **1.5-2 times greater in males than females**. Later, rates decrease for both sexes, with a narrowing sex ratio, until the mid-forties when there is a minor secondary peak for women.

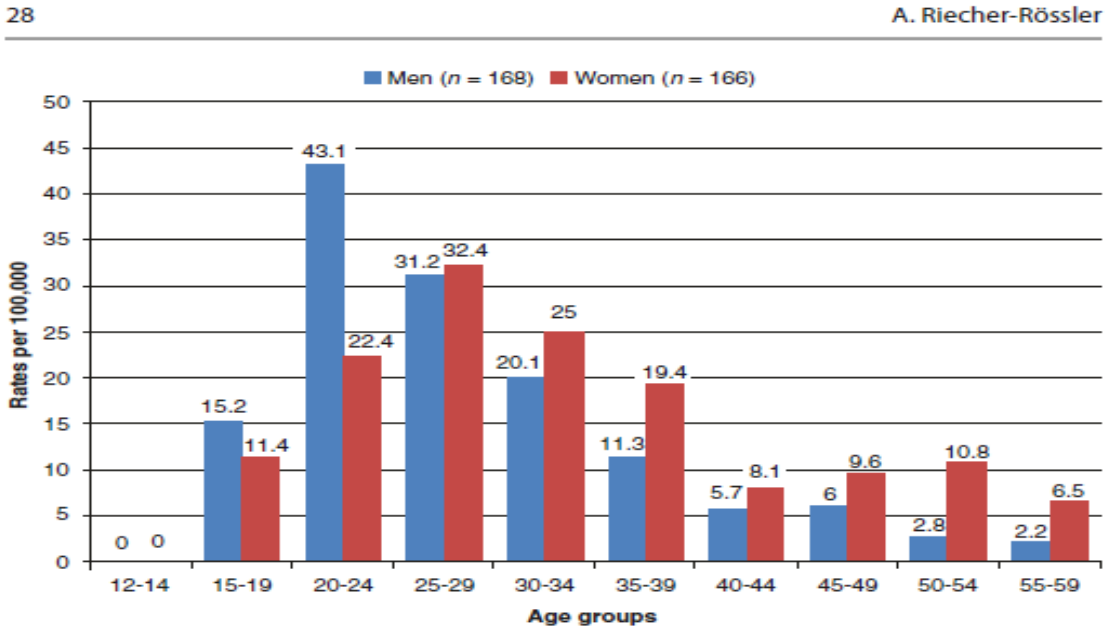


Fig. 5.2 Sex-specific age distribution at first admission for schizophrenia (ICD-9: 295). Source [9]

Schizofrenia : differenze di presentazione clinica e decorso

Table 23.3 Gender differences in schizophrenia

Schizophrenia		
Characteristics	Women	Men
Prevalence	=	=
Incidence	↑ for late-onset schizophrenia	↑ for early-onset schizophrenia
Duration of untreated psychosis (DUP)	=	=
Age of onset	Younger	Older
Positive symptoms	↑	↓
Negative symptoms	↓	↑
Cognitive impairment	↓	↑
Number of hospitalizations	↓	↑
Acts of severe violence	↓	↑
Treatment response	↑	↓

= means no significant gender difference
↑ means higher/more frequent/more severe
↓ means lower/less frequent/more severe

Differenze di risposta al trattamento AP in uomini e donne

Environmental and biological factors are likely to contribute to this difference.

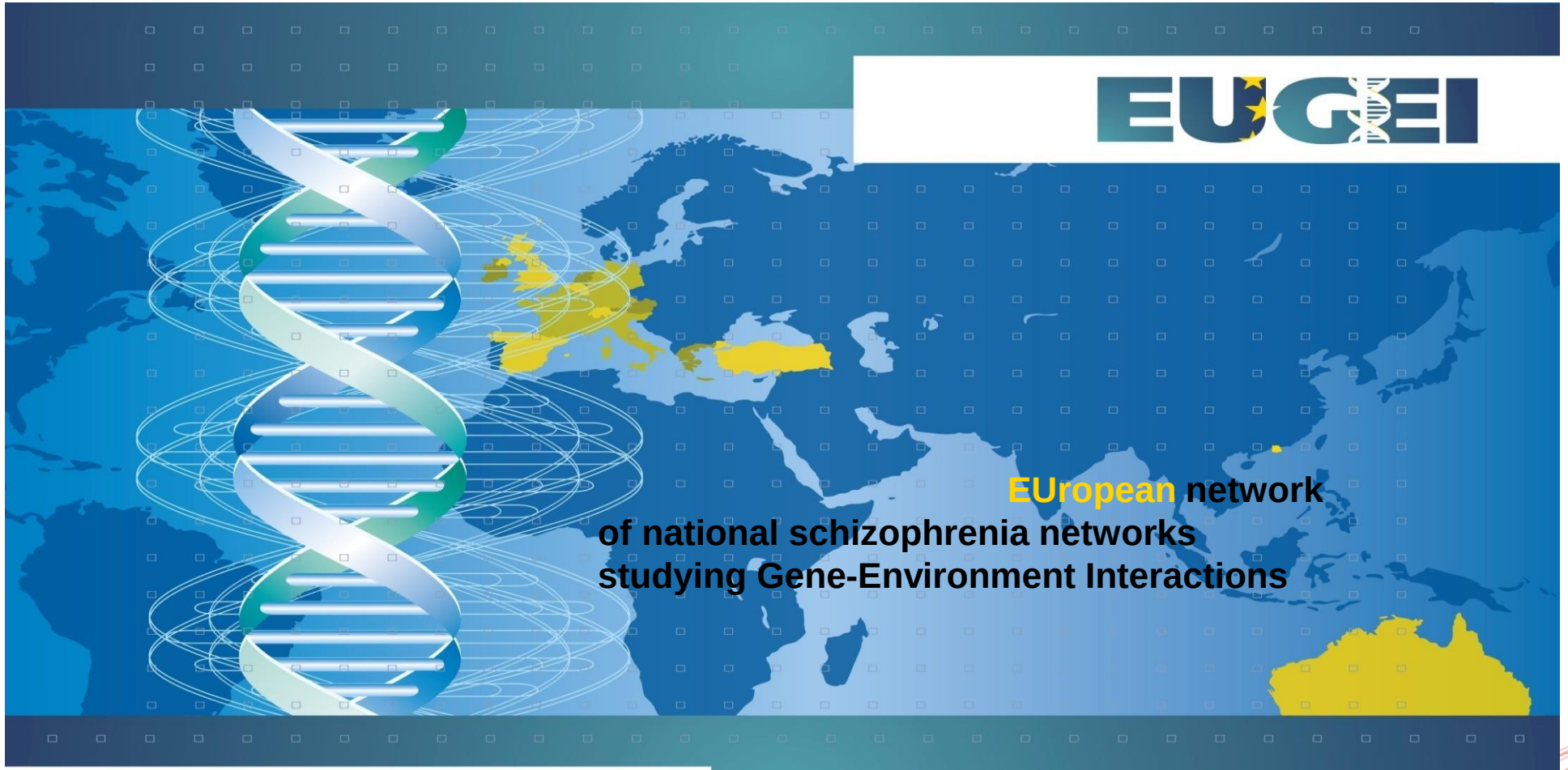
- Diverse environmental factors were demonstrated likely to affect treatment outcomes in schizophrenia, among them: **pathological substance use, poorer premorbid and lower social functioning**.
- Gonadal hormones and their brain receptors are differently distributed in men and women, and they are known to influence brain sex-related anatomy and function. This brain sexual dimorphism could influence pharmacodynamics pathways of antipsychotic

Differenze di genere nella schizofrenia e ruolo di estrogeni (e progesterone)

Estrogens via their antidopaminergic properties might protect women from the outbreak of psychosis during their fertile years, and they only fall ill when they lose this protective factor during menopause. This would not only explain women's later age of onset in schizophrenic psychoses, but also their second peak of incidence after menopause.

Schizophrenia more often occurs or exacerbates in the premenstrual low estrogen phase of the cycle, with postpartum loss of high estradiol levels of pregnancy and with the peri-menopausal loss of estrogens .

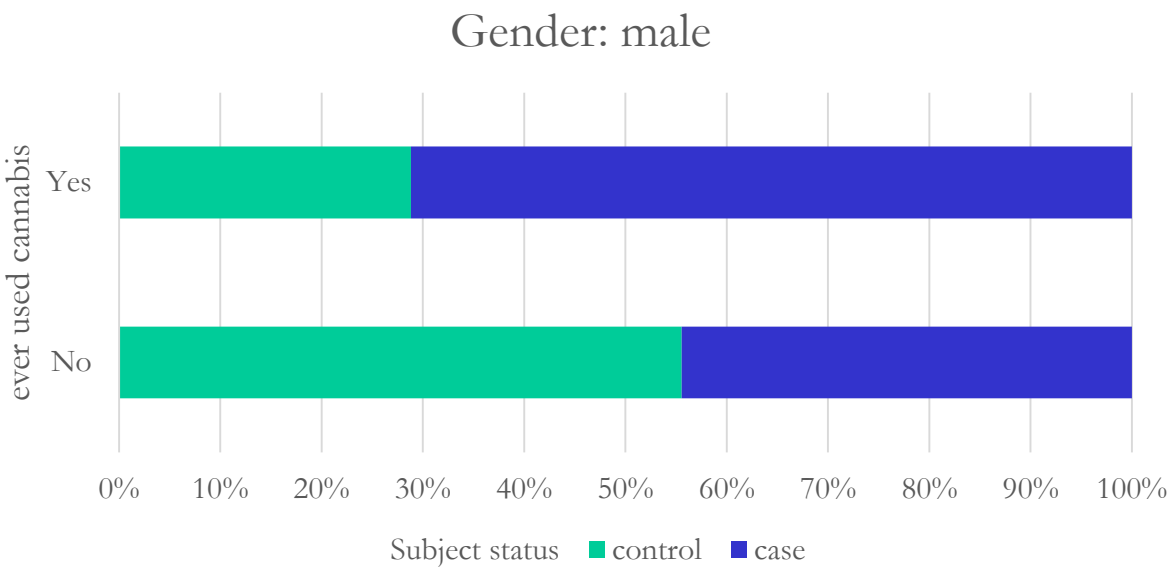
And what about migrant women?

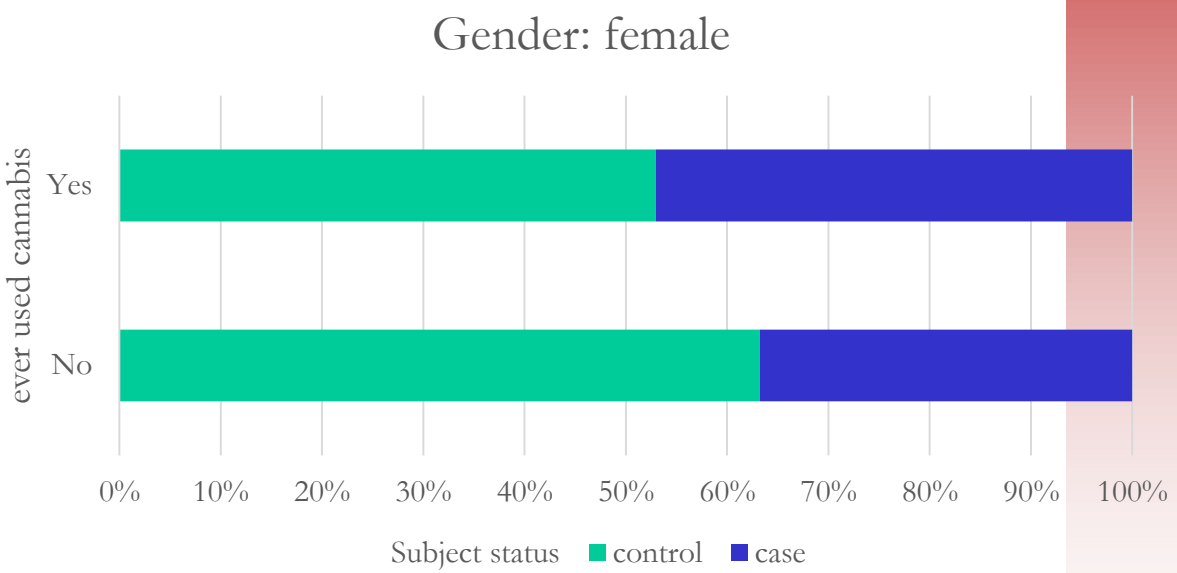

EUGEI
EUropean network
of national schizophrenia networks
studying Gene-Environment Interactions
http://www.eu-gei.eu/
SEVENTH FRAMEWORK PROGRAMME
EUROPEAN COMMISSION
The project is funded by the European Community's Seventh Framework Programme under grant agreement No. HEALTH-F2-2010-241909 (Project EU-GEI).

Sample

	Cases N(%)	Controls N(%)	Total N(%)
Males	159 (**62.8%**)	94 (37.2%)	253 (54.1%)
Females	90 (**41.9%**)	125 (58.1%)	215 (45.9%)
Total	249 (53.2%)	219 (46.8%)	468 (100%)

Cannabis use by gender





Cannabis use	M cases N(%)	M controls N(%)	M total N(%)	**<0.001***				0.138*
No	36 (23.7%)	45 (48.9%)	81 (33.2%)		46 (53.5%)	79 (63.7%)	125 (59.5%)	No
Yes	116 (76.3%)	47 (51.1%)	163 (66.8%)		40 (46.5%)	45 (36.3%)	85 (40.5%)	Yes
Total	152 (62.3%)	92 (37.7%)	244 (100.0%)		86 (41.0%)	124 (59.0%)	210 (100.0%)	Total

*chi-square test

Childhood trauma by gender

	M cases Median, IQR	M controls Median, IQR	M total Median, IQR	P males	F cases Median, IQR	F controls Median, IQR	F total N Median, IQR	P females
Childhood maltreatment score (CTQ)**	41.5 (35.0-53.0)	31.0 (28.0-38.0)	37.0 (31.0-47.0)	**<0.001***	39.0 (31.0-59.5)	33.0 (29.0-45.75)	34.5 (29.0-49.5)	**0.012***

** Mann-Whitney test*

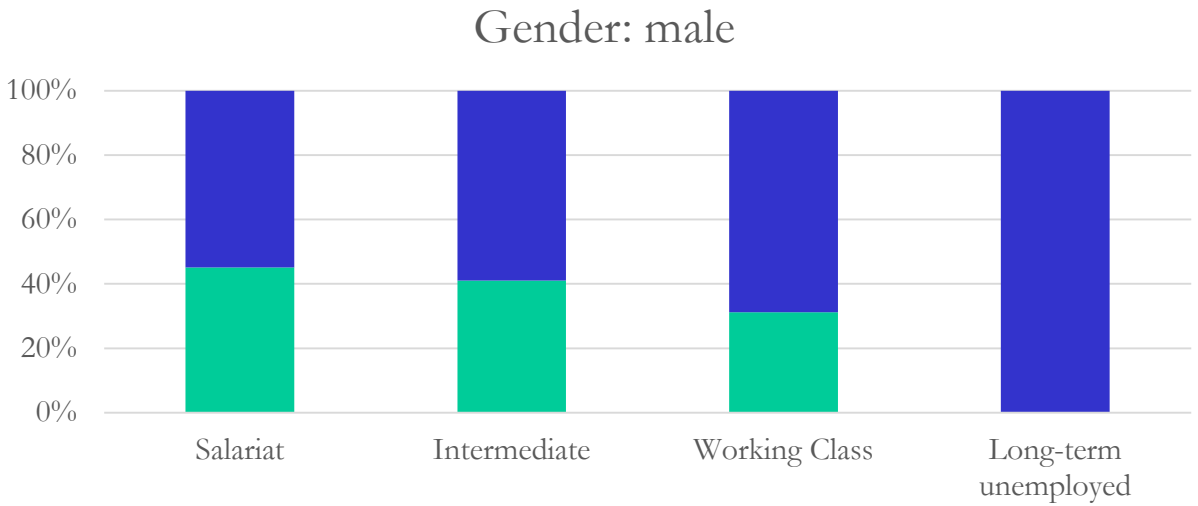
***Median and interquartile range*

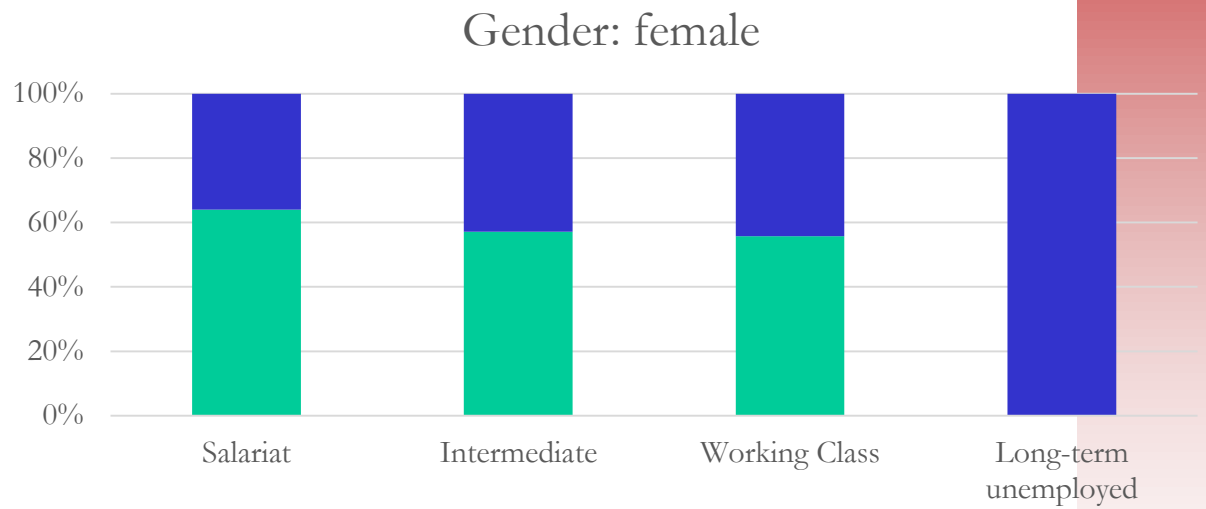
Pre-migration phase

Are there any specific migration history characteristics which predict FEP?

- Parental social class at birth
- Ever employed before migration
- Living conditions before migration

Parental social class at birth by gender

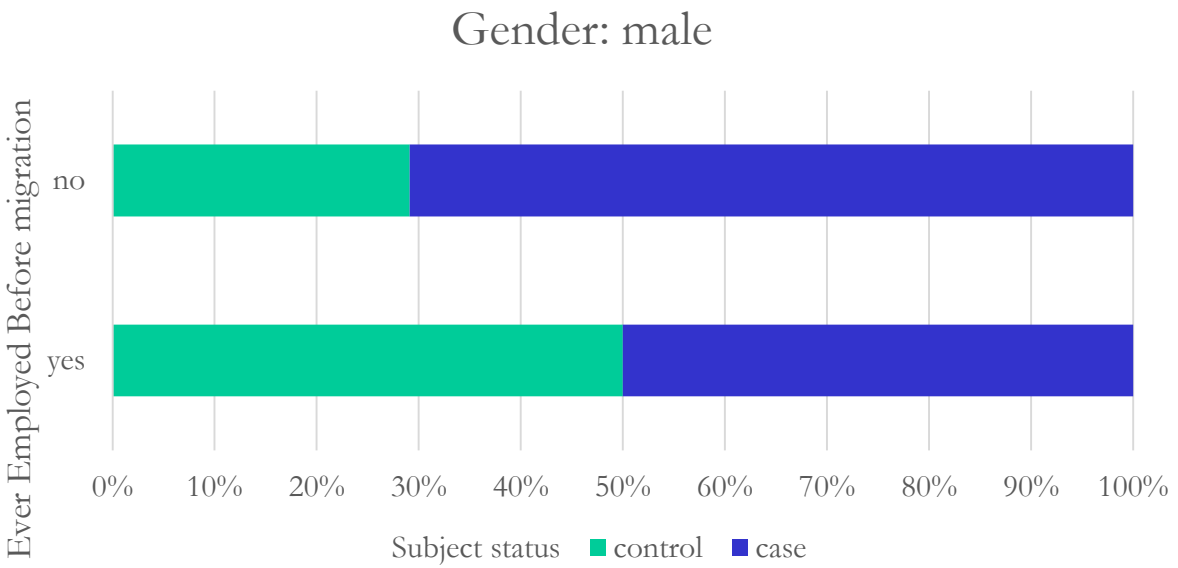


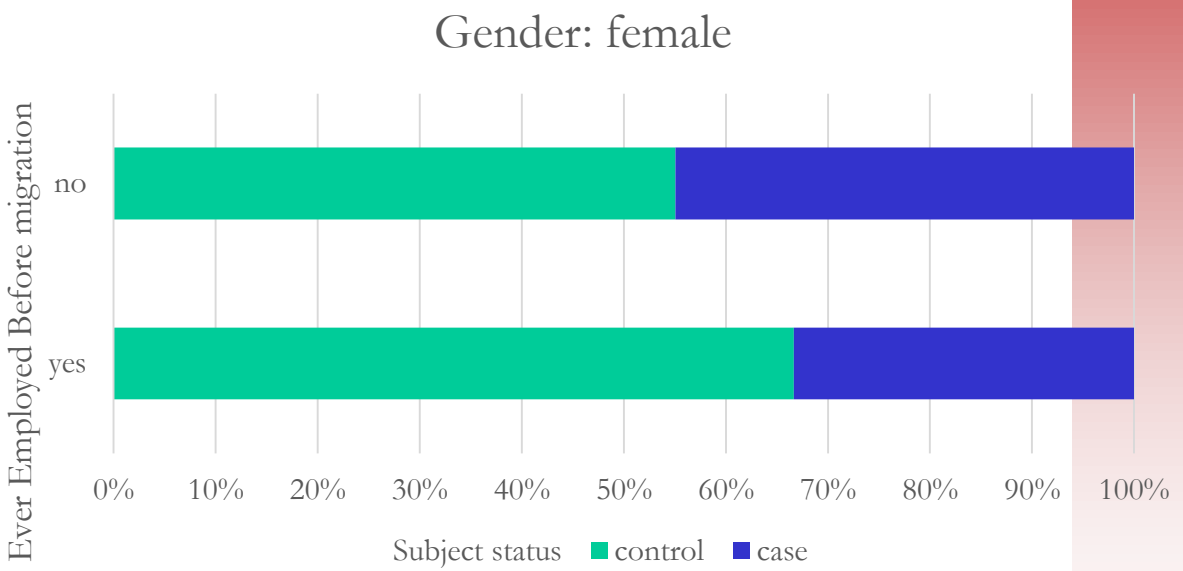


Parent social class	M cases N(%)	M controls N(%)	M total N(%)	**<0.001***	F cases N(%)	F controls N(%)	F total N(%)	0.138*
No	36 (23.7%)	45 (48.9%)	81 (33.2%)		46 (53.5%)	79 (63.7%)	125 (59.5%)	
Yes	116 (76.3%)	47 (51.1%)	163 (66.8%)		40 (46.5%)	45 (36.3%)	85 (40.5%)	
Total	152 (62.3%)	92 (37.7%)	244 (100.0%)		86 (41.0%)	124 (59.0%)	210 (100.0%)	

*chi-square test

Ever employed before migration by gender

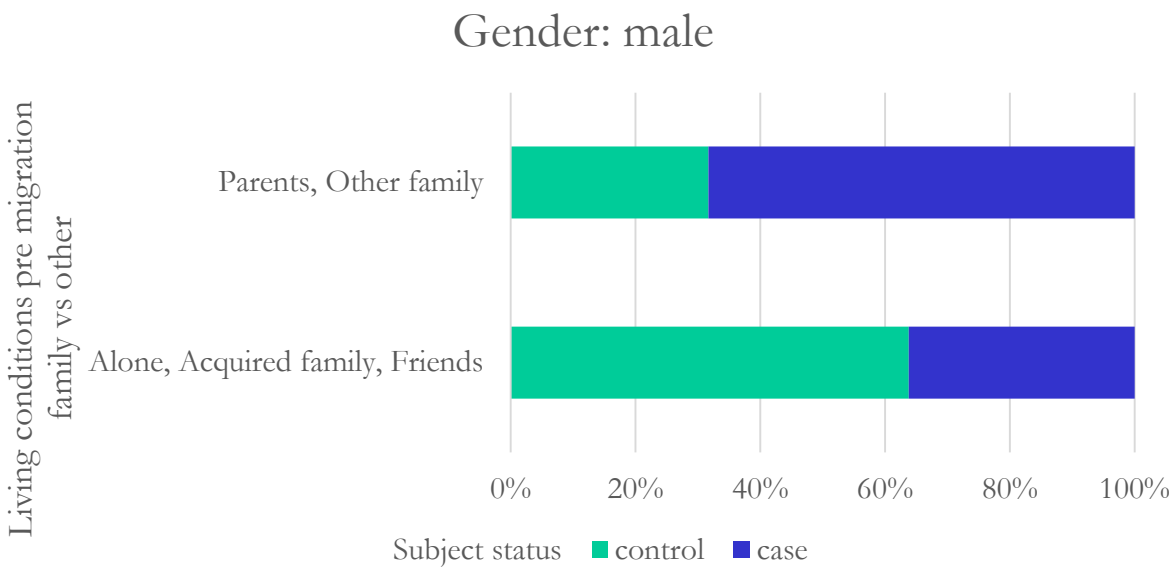


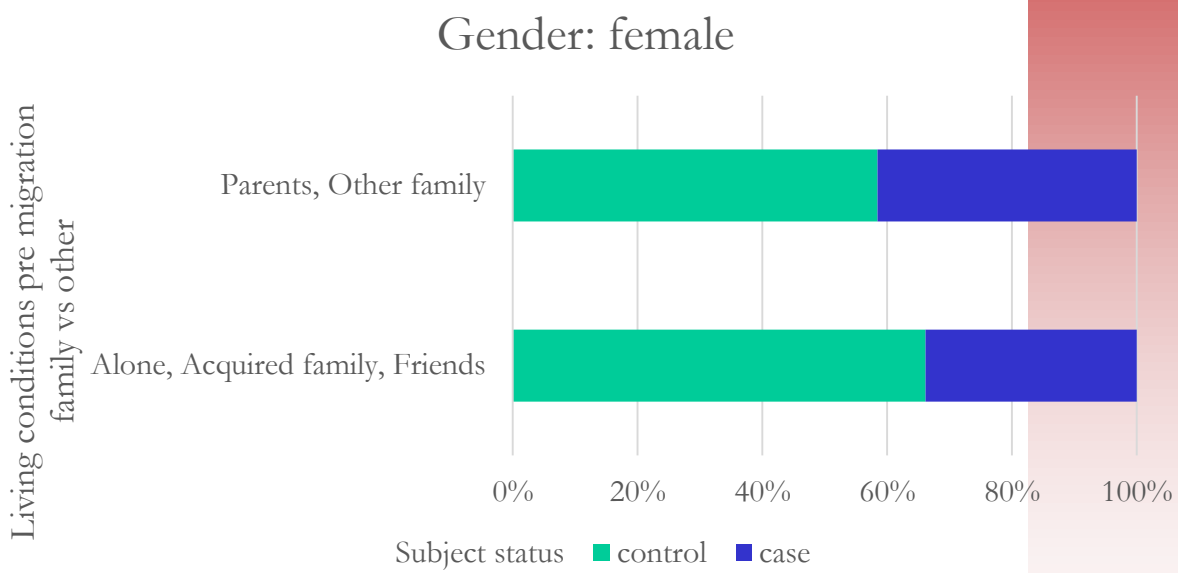


Employed before	M cases N(%)	M controls N(%)	M total N(%)	**0.002***	F cases N(%)	F controls N(%)	F total N(%)	0.111*
Yes	52 (41.6%)	52 (63.4%)	104 (50.2%)		30 (42.9%)	60 (55.0%)	90 (50.3%)	
No	73 (58.4%)	30 (36.6%)	103 (49.8%)		40 (57.1%)	49 (45.0%)	89 (49.7%)	
Total	125 (60.4%)	82 (39.6%)	207 (100.0%)		70 (39.1%)	109 (60.9%)	179 (100.0%)	

*chi-square test

Living conditions before migration by gender





Living conditions before	M cases N(%)	M controls N(%)	M total N(%)	**<0.001***	F cases N(%)	F controls N(%)	F total N(%)	0.317*
Alone/acquired family/friends	17 (13.4%)	30 (37.0%)	47 (22.6%)		21 (30.0%)	41 (37.3%)	62 (34.4%)	
Parents/other family	110 (86.6%)	51 (63.0%)	161 (77.4%)		49 (70.0%)	69 (62.7%)	118 (65.6%)	
Total	127 (61.1%)	81 (38.9%)	208 (100.0%)		70 (38.9%)	110 (61.1%)	180 (100.0%)	

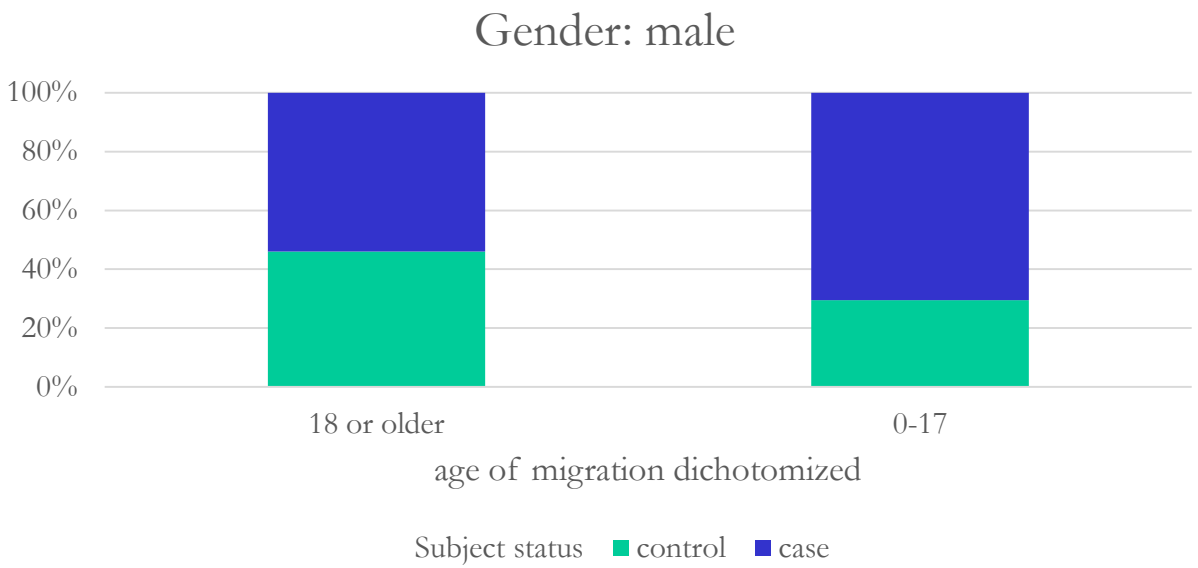
*chi-square test

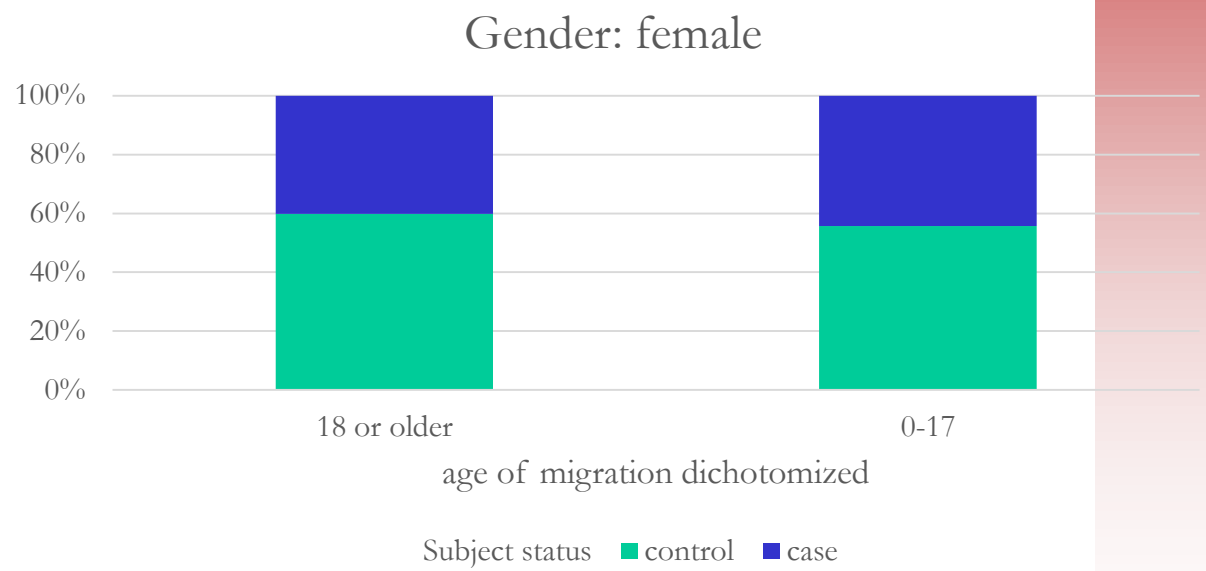
Migration phase

Are there any **specific migration history characteristics** which predict FEP?

- Age at migration
- Frequency travel back
- Detention

Age at migration by gender





	M cases Median, IQR	M controls Median, IQR	M total Median, IQR	P males	F cases Median, IQR	F controls Median, IQR	F total N Median, IQR	P females
Age at migration	17.0 (9.0-23.0)	21.0 (13.0-25.0)	19.0 (9.75-24.0)	**0.005***	20.5 (14.0-28.25)	21.0 (10.5-26.0)	21.0 (11.0-27.0)	0.789*

** Mann-Whitney test*

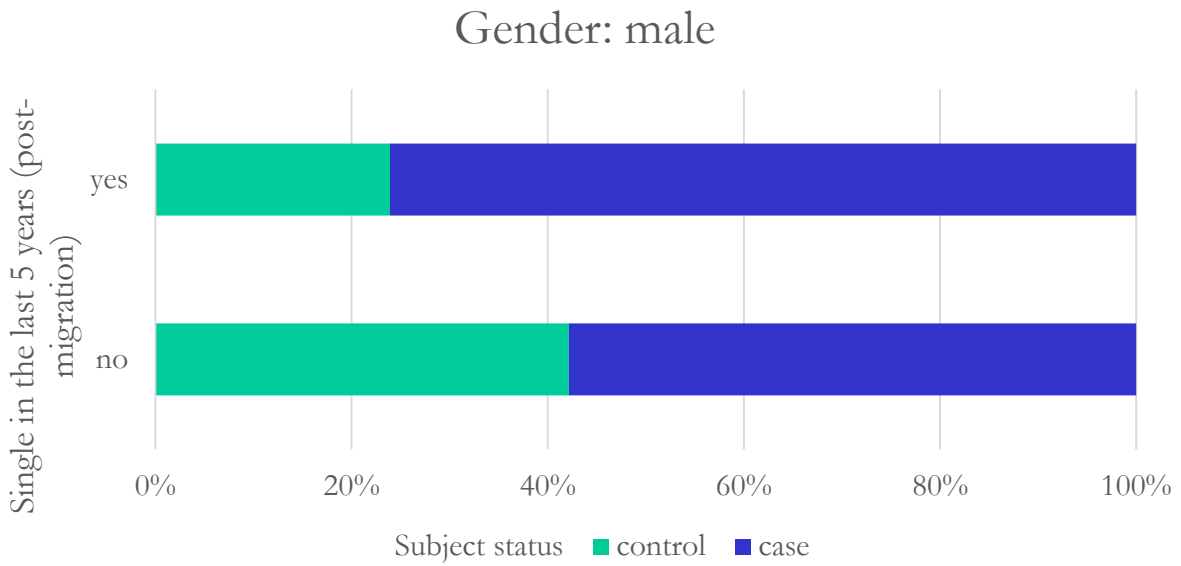
***Median and interquartile range*

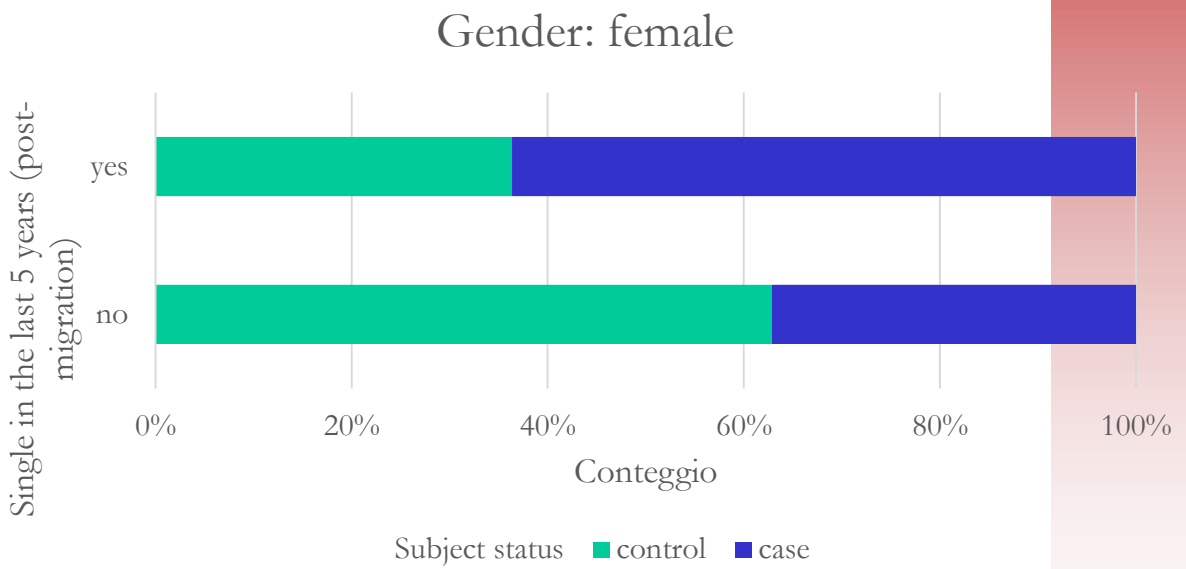
Post-migration phase

Are there any **specific migration history characteristics** which predict FEP?

- Last 5-years single
- Last 5-years unemployed
- Social network in Country of arrival

Last 5-years unemployed by gender





Last 5-yrs unemployed	M cases N(%)	M controls N(%)	M total N(%)	**0.042***	F cases N(%)	F controls N(%)	F total N(%)	0.205*
Yes	10 (7.0%)	1 (1.1%)	11 (4.8%)		5 (6.2%)	3 (2.6%)	8 (4.0%)	
No	133 (93.0%)	87 (98.9%)	220 (95.2%)		76 (93.8%)	114 (97.4%)	190 (96.0%)	
Total	143 (61.9%)	88 (38.1%)	231 (100.0%)		81 (40.9%)	117 (59.1%)	198 (100.0%)	

*chi-square test

Conclusions

High levels of disadvantages and adversities in all phases of migration, consistently with the neuro-socio-developmental pathway of psychosis

Different burden of psychosocial risk factors and adverse migration history characteristics between genders at first episode of psychosis

Importance of developing gender-oriented psychosocial strategies for prevention and treatment of psychosis in migrants, as part of the transcultural competence of psychiatric interventions.

Grazie per l'attenzione

Ilaria Tarricone, Maria Galatolo, Lorenzo Pelizza
Alma Mater Studiorum - Università di Bologna

lorenzo.pelizza@unibo.it