# Assessment of the change in Obesity Prevalence of women and men living in Balcova District of Izmir according to the Social Determinants of Health 

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## BACKGROUND

- Difference in obesity prevalence between women and men
- Gender, as one of the important social determinants of health may have an important role in the difference of obesity prevalence


## BACKGROUND

- Balcova Heart Study

Population-based intervention study

- Conducted in Balcova district of Izmir
- Aimed to assess the risk factors of coronary heart diseases
- Applying a questionnaire and doing the antropometric measurements
- 16,080 persons over 30 years of age
- Ongoing cohort study, began in 2007

[^0]
## OBJECTIVE

- The aim of this study is to determine the prevalence of obesity in women and men living in Balcova district of Izmir and to assess the change in the prevalence according to the social determinants of health


## METHOD

- The data of Balcova Heart Study
- $\mathrm{BMI} \geq 30$
- First Stage $\longrightarrow$ obesity prevalence for both women and men
- In each layer of independent variables:
- education
- employment status
- occupational categories
- perceived economical status
- Second Stage $\Longrightarrow$ Crude OR to compare the risk of obesity in women vs men


## METHOD

, Finally $\longrightarrow$ age and comorbidity adjusted OR according to

- Age
- Hypertension
- Diabetes
- Coronary heart diseases
- Stroke


## RESULT

## Table 1: Obesity prevalence between women and men

|  | Women <br> $(\%)$ | Men <br> $(\%)$ | OR <br> $(95 \% \mathrm{Cl})$ | Adjusted OR* <br> $(95 \% \mathrm{Cl})$ | Adjusted OR** <br> $(95 \% \mathrm{Cl})$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| OBESITY | 44.2 | 29.3 | 1.911.77-2.07) | $2.10(1.94-2.28)$ | 2.05 |
|  | $1.89-2.22)$ |  |  |  |  |

*Adjusted for age
**Adjusted for age, comorbidity

## RESULT

## Table 2: Obesity prevalence between women and men according to education

$\left.\begin{array}{|l|l|l|l|l|l|l|}\hline \text { EDUCATION } & \begin{array}{l}\text { Women } \\ (\%)\end{array} & \begin{array}{l}\text { Men } \\ (\%)\end{array} & \begin{array}{l}\text { OR } \\ (95 \% \mathrm{Cl})\end{array} & \begin{array}{l}\text { Adjusted OR* } \\ (95 \% \mathrm{Cl})\end{array} & \begin{array}{l}\text { Adjusted OR** } \\ (95 \% \mathrm{CI})\end{array} \\ \hline \text { Illiterate } & 64.2 & 21.4 & \begin{array}{l}6.56(3.40- \\ 12.66)\end{array} & 6.35(3.29-12.26) & 5.83\end{array}\right)(3.00-11.34)$
*Adjusted for age**Adjusted for age, comorbidity

## RESULT

Table 3: Obesity prevalence between women and men according to employment status

| EMPLOYMENT <br> STATUS | Women <br> $(\%)$ | Men <br> $(\%)$ | OR <br> $(95 \% \mathrm{Cl})$ | Adjusted <br> OR* <br> $(95 \% \mathrm{Cl})$ | Adjusted <br> OR** <br> $(95 \% \mathrm{Cl})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Unemployed | 47.2 | 24.3 | 2.77 <br> $(2.07-3.71)$ | 2.56 <br> $(1.90-3.46)$ | $2.49)$ <br> $(1.84-3.37)$ |
| Employed | 20.2 | 27.7 | 0.66 | 0.72 | 0.70 |
| Retired | 44.7 | 30.8 | 1.81 <br> $(1.57-2.09)$ | 1.88 <br> $(1.62-2.18)$ | 1.89 <br> $(1.62-2.19)$ |

*Adjusted for age**Adjusted for age, comorbidity

## RESULT

Table 4: Obesity prevalence between women and men according to occupational categories
$\left.\begin{array}{l|l|l|l|l|l|}\hline \begin{array}{l}\text { OCCUPATIONAL } \\ \text { CATEGORIES }\end{array} & \begin{array}{l}\text { Women } \\ (\%)\end{array} & \begin{array}{l}\text { Men } \\ (\%)\end{array} & \begin{array}{l}\text { OR } \\ (95 \% ~ C I)\end{array} & \begin{array}{l}\text { Adjusted } \\ \text { OR* } \\ (95 \% ~ C I)\end{array} & \begin{array}{l}\text { Adjusted } \\ \text { OR }\end{array} \\ (95 \%\end{array}\right)$

[^1]
## RESULT

Table 5: Obesity prevalence between women and men according to perceived economical status

| PERCEIVED ECONOMICAL STATUS | Women <br> (\%) | Men <br> (\%) | OR (95\% CI) | Adjusted OR* (95\% CI) | Adjusted OR** (95\% CI) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bad | 45.2 | 24.2 | $\begin{aligned} & 2.58 \\ & (1.94-3.43) \end{aligned}$ | $\begin{aligned} & 2.80 \\ & (2.09-3.75) \end{aligned}$ | $\frac{2.62}{(1.94-3.54)}$ |
| Moderate | 44.9 | 30.1 | $\begin{aligned} & 1.89 \\ & (1.73-2.06) \end{aligned}$ | $\begin{aligned} & 2.06 \\ & (1.89-2.26) \end{aligned}$ | $\begin{aligned} & 2.01 \\ & (1.84-2.20) \end{aligned}$ |
| Good | $37.9 \downarrow$ | 28.9 | $\begin{aligned} & 1.49 \\ & (1.16-1.92) \end{aligned}$ | $\begin{aligned} & 1.73 \\ & (1.33-2.25) \end{aligned}$ | $\frac{1.74}{(1.34-2.27)}$ |

## CONCLUSION

## Education and employment status


important roles

- Benefit from the increase in educatonal and occupational level


## CONCLUSION

- Perceived economical status not a good indicator
- Due to the economical dependence of women
- Better economical status perception may arise from husbands' income


## CONCLUSION

- The causal relation between education and gender inequality in obesity
- Further researches


## THANK YOU...


[^0]:    *Ergor G. et al, Balcova Heart Study, Rationale and methodology of the Turkish Cohort, 2011
    **Unal B.et al, High prevalence of cardiovascular risk factors in a Western urban Turkish population: a community-based study,2012

[^1]:    *Adjusted for age
    ** Adiucted for ano comorhidity

