PERCEIVED DISCRIMINATION CONTRIBUTES TO THE RISK OF PRETERM BIRTH IN TURKISH IMMIGRANT WOMEN

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HEALTHY IMMIGRANTS?!
MIGRATION AND HEALTH

• In general, socioeconomic status is one of the most relevant determinants of health
• Immigrants drink less alcohol, but do also less sport and have more often an unhealthy diet
• Immigrants use health services less
• Some health disparities exist between the immigrant and non-immigrant population
  • Mental health adversities are prevalent among immigrants
  • Disparities are forwarded from one generation to the next

(RKI, 2015; Igde, Heinz, Schouler-Ocak, & Rössler, 2018)
Maternal migration

(migration related) stressors

Maternal-placental-fetal stress biology

infant health

prenatal
PRETERM BIRTH (PTB)

= Birth at < 37 weeks of gestation

- Contributes to developmental impairment, early child death

- Risk factors (among others):
  - Social disadvantage
  - Race/ethnicity
    - Non-Hispanic Black 13.92% vs. Non-Hispanic White 9.06% in 2017

(Culhane & Goldenberg, 2011; Liu et al., 2012; Saigal & Doyle, 2008)
PERCEIVED DISCRIMINATION

= an individual’s perception of being disadvantaged due to his/her belonging of a group (e.g., race/ethnicity, gender, sexual orientation, …)

- Is linked to health adversities
  - Self-rated health, hypertension, depression and anxiety
- Its adverse effects may also be transmitted to the offspring
  - Association to PTB and to low birth weight in African-American mother-child-dyads in US

(Seymour-Smith, 1986; Diehl & Liebau, 2017; Pascoe & Smart Richman, 2009; Dominguez, 2008; Giscombe & Lobel, 2005)
BIOLOGICAL EMBEDDING OF PERCEIVED DISCRIMINATION

- Perceived discrimination as stressor
- Triggers the biological stress response
  - e.g., elevated blood pressure, heart rate, cortisol secretion
- Psychological stress is a risk factor for PTB due to alterations in maternal-placental-fetal stress biology

Pascoe & Smart Richman, 2009; Wadhwa, Entringer, Buss, & Lu, 2011
WHY FOCUS ON TURKISH IMMIGRANTS?

- One of the largest immigrant groups in Germany (~3 mill.)
- Show health disparities
- Socioeconomic disadvantage
- Report perceptions of being discriminated against

Mixed evidence:

- Lower risk for immigrants from the Middle East and North Africa, incl. Turkey\(^1\)
- Higher risk for immigrants from the Middle East and North Africa, incl. Turkey\(^2\)
- Same or even lower risk for Berlin-based immigrants from Turkey\(^3\)
- Higher risk for Turkish immigrants in the SOEP sample (waves 2003-2011)\(^4\)

\(^1\) Reeske et al., 2011; \(^2\) Weichert et al. 2015; \(^3\) David et al., 2017; \(^4\) Becker & Stolberg, 2013
AIM OF THE STUDY

1) Do Turkish immigrant women have a higher risk of PTB than autochthonous women in the SOEP sample?

2) Is the risk of PTB related to perceived discrimination in Turkish immigrant women?
SOEP DATA

- **N = 2525 mother-child-dyads**
  - **n=2308 autochthonous women** (i.e., self and parents are born in Germany)
  - **n=217 Turkish immigrant women** (i.e., self and/or at least one parent born in Turkey)

- **SOEP newborn questionnaire**
  ("Mother-Child: Age 0-1", 2003 – 2016, v33) Information on birth outcomes

- **SOEP individual questionnaire**
  Item on perceived discrimination
# VARIABLES FOR LOGISTIC REGRESSION MODELS

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<tr>
<th>Variables</th>
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<td><strong>Criterion variable</strong></td>
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| Preterm birth (PTB)           | dichotomous | 0 = ≥ 37 wks of gestation  
1 = < 37 wks of gestation | BIRTHPW (kidlong)            |
| **Independent variables**     |          |                                                  |                              |
| Group affiliation             | dichotomous | 0 = autochthonous  
1 = Turkish immigrant | MIGBACK, CORIGIN (ppfad), MORIGIN, CORIGIN (bioparen) |
| Perceived discrimination      | dichotomous | 0 = never  
1 = often/seldom | Item on perceived discrimination due to origin from wave before birth ($p$) |
| **Control variables**         |          |                                                  |                              |
| Maternal age                  | continuous |                                                | GEBJAHR (ppfad)              |
| Parity                        | continuous |                                                | NCHILD (kidlong)             |
| Years of education            | continuous |                                                | PGBILZEIT (pgen)             |
**MAIN EFFECT OF GROUP AFFILIATION**

Turkish immigrant women had a significantly higher risk of PTB compared to autochthonous women

- Unadjusted model (2741 complete cases), $B = 0.75$, $p < .001$, $\text{OR} = 2.12$, 95%CI OR [1.47-3.00]

- Adjusted model*: (2380 complete cases) $B = 1.01$, $p < .001$, $\text{OR} = 2.75$, 95%CI OR [1.79-4.16]

*Adjusted for maternal age, parity, years of education

**Figure 1. Risk of preterm birth:**

*Turkish immigrant vs. autochthonous women*
MAIN EFFECT OF PERCEIVED DISCRIMINATION

Turkish immigrant women who reported perceived discrimination had a significantly higher risk of PTB compared to women who did not

- Unadjusted model (124 complete cases): $B = 1.41, p < .001$, $OR = 4.08$, 95%CI $OR [1.67-10.56]$

- Adjusted model* (99 complete cases): $B = 1.59, p < .001$, $OR = 4.91$, 95%CI $OR [1.76-15.06]$

*Adjusted for maternal age, parity, years of education

Figure 2. Risk of preterm birth and perceived Discrimination (Turkish immigrant women only)
SUMMARY OF RESULTS

- The risk for preterm birth is increased in Turkish immigrant women compared to autochthonous women in Germany in the SOEP sample.
- Among Turkish immigrant women, perceived discrimination is related to a higher risk of preterm birth.
DISCUSSION

- Replication of previous findings on association between Turkish immigrant status and PTB using SOEP data
- Other studies that did not find increased PTB risk of Turkish immigrants included North African and Middle Eastern immigrants or were Berlin-based only
- Matches findings of studies on increased PTB risk of African-Americans in the US
- First study on perceived discrimination and PTB risk in Turkish immigrant sample

(Becker & Stolberg, 2013; Reeske et al. 2011; David et al. 2017; Giscombé & Lobel 2005)
LIMITATIONS

• Other potential confounders: obstetric risks, BMI, alcohol and nicotine consumption (available, but many missings)

• Small subsets of complete cases in the analyses

• Prenatal perceived discrimination assessed when ~50% were not yet pregnant

• Not possible to investigate the proposed biological pathways using SOEP data
CONCLUSION AND OUTLOOK

• Further evidence that perceived discrimination may contribute to health disparities of immigrant populations

• Need for prospective cohort studies to investigate physiological pathways (currently conducted by our research group)

• Future research should address impact of perceived discrimination on health in other target groups (e.g., refugees, LGBT)
REFERENCES


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References


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Graphs on slide 2 „Healthy Immigrants?!“: https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcSzauosrF3HY3Czdtnn7urDjNbwK9wzZdovcvD4B8SejyT8oEm;
https://www.italiener.angekommen.com/Dokumente/inc/Bundesrepublik/Wirtschaftswunder/images/BlockGesundheitsueberpru-05.jpg;

Graph on slide 6 „Perceived Discrimination“: http://www.hrmagazine.co.uk/article-images/168890/discrimination_popup.jpg