Is an anxious more responsible? Anxiety, health locus of control and responsibility for the health among 15, 19-20 and 24-29 years old.

Empirical study
To analyse psychological relationship between sense of responsibility for one’s own health and other factors important in medical psychology

- Health locus of control (HLC)
- Anxiety level.

Subject matter is presented in the contemporary paradigm of health psychology.
Basic assumptions

- **Anxiety**
  - a result of health failure or a risk factor for an illness (e.g. Shipley et al., 2007).

- **Responsibility for health**
  - focal point in health promotion,
  - but unclear relation to other psychological features and health behavior (Ziff et al., 1995)

- **Health locus of control**
  - important correlate of health behaviors,
  - but it’s internal dimension was found to be positively related with depression, when seen as a self-blame for illness (Plaufcan et al., 2012; Suchocka, 2011).

- As objective determination of responsibility for one’s health is questionable (Yoder, 2010), we consider it here only as it is subjectively perceived.
Study questions

- Do teens and young adults aged 15, 19-20 and 24-29 years will differ on
  - anxiety level,
  - health locus of control
  - sense of responsibility level for health?

- Is there different pattern of relationships according for age group?

- Are there more general relationships between given variables and which directions they take?
Participants and procedure

- **Group I** - 15 years old pupils (n=72) of Warsaw secondary schools (43 i.e. 59.7% girls).

- **Group II** - young adults (n=109), 19 - 20 years old high schools’ students in Warsaw; (76 i.e. 69.7% female).

- **Group III** - young adults (n=97), 24 - 29 years old working and studying; (70 i.e. 71.4% female)

  Participants did not report any chronic diseases.

  All participants were healthy.

  Participants received a set of tests in a fixed order, with oral and written instructions. Total test time was about 30 minutes.
Measures

* Sense of responsibility for health - Health Sense of Responsibility Scale (SPO-Z) - M. Adamus.

- 12 items on two subscales: **responsible (mature) involvement** (5 items) and **adequate active responsibility** (7 items). The questions are e.g.: „My health is up to me” or „I read books about health” for each of the subscales respectively. Responses are on 5 point Likert’s scale.

- **Reliability:** Cronbach's alpha coefficient for the first subscale is 0.70 and for the other – 0.73. Cronbach's alpha coefficient for the whole questionnaire is 0.74.
Measures

* Anxiety level → State-Trait Anxiety Inventory (STAI)
(Spielberger, Gorsuch, Lushene; Polish adaptation: Strelau, Tysarczyk, Wrześniewski)

Two subscales: state anxiety and trait anxiety with 20 items
(scores: 20-80 each).

Reliability: Cronbach's alpha - state subscale = 0.90, trait subscale = 0.88.

* Health Locus of Control → The Multidimensional Health Locus of Control Scale (MHLC)
(Wallston, Wallston, DeVellis; Polish adaptation: Juczyński)

Three subscales: internality; externality - as powerful others externality and chance externality (scores: 6-36 for each).

Reliability: Cronbach's alpha: internality = 0.74; for chance externality = 0.69, powerful others externality = 0.54.
Results – between groups differences

Kruskall–Wallis’ tests (Chi–Square=10.62 (df 2); p<0.001)

No differences were found for perceived responsibility level nor for remaining anxiety and HLC dimensions

Kruskall–Wallis’ tests (Chi–Square=18.20 (df 2); p<0.001)
Results - group I – 15 y.o.

- The study shows the correlation between:
  - adequate active responsibility and powerful others externality locus of control (Rho=0.29, p<0.01),
  - responsible (mature) involvement and internal health locus of control (Rho=0.29, p<0.01).

- Among teenagers the remaining variables were not related.
Results - group II – 19-20 y.o.

Model 1. The relationships between anxiety, sense of responsibility for health and locus of control in 19-20 years old (χ² (19) = 31.038, p.=0.149; CFI=0.905 and RMSEA=0.076; after removing statistically insignificant paths).
Results - group III – 24-29 y.o.

Model 2. The relationships between anxiety, sense of responsibility for health and locus of control in 24-29 years old (χ² (18) = 27.485; p=0.229; CFI=0.910 and RMSEA=0.072; after removing statistically insignificant paths).
Conclusions – answering the leading question

- The level of anxiety is a significant predictor of sense of responsibility among young adults.

- The higher level of anxiety the less responsible a young person may feel for his/her own health.

- The reducing effect of anxiety on perceived responsibility would implicate an important limitation:
  - of health promotion or prophylaxis campaigns, which often base on rising anxiety level;
  - of clinicians’ interventions intending to increase motivation e.g. for lifestyle change through fear of symptoms aggravation.
Conclusions – what have we learned about responsibility?

- Both assumed dimensions of responsibility were mediating between anxiety, gender and HLC.

- The influence of responsibility on health locus of control in all its dimensions seems particularly important. The detailed pattern is however a matter of age.

- Gender differences should be taken into account when assessing sense of responsibility for health in young adults (but not necessarily in teens)
In health promotion designed for young people, two important aspects are worth considering:

- actions aiming at reduction of anxiety e.g. through enhancing self-esteem

- a modelling process, to take the advantage of still important role powerful others play in their HLC
Thank you for your attention