

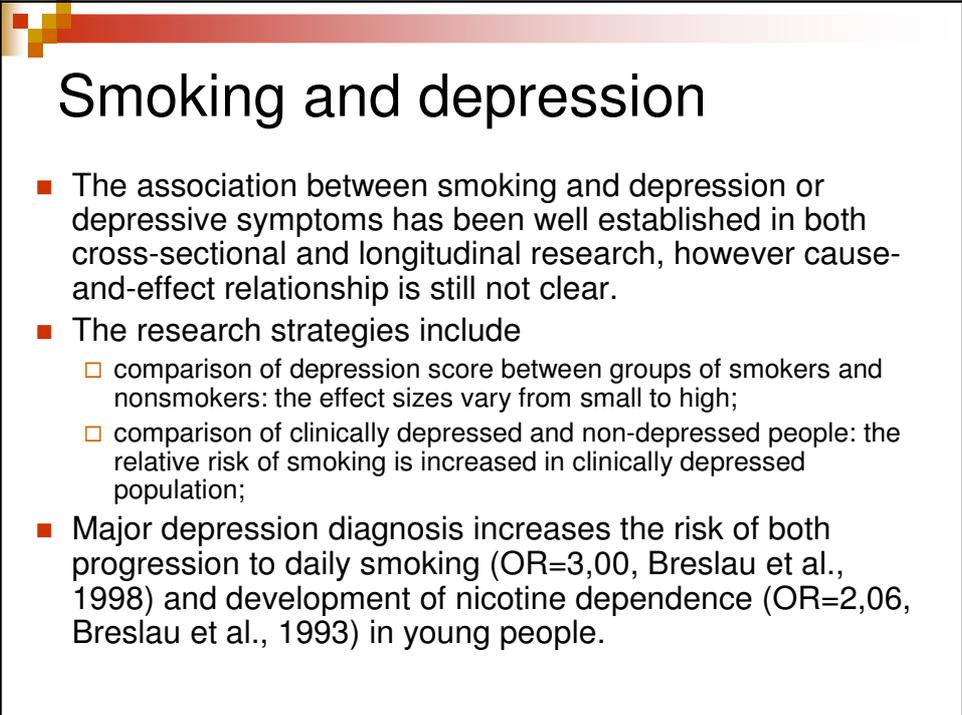
Does depressive symptomatology mediate the association between smoking and trait anxiety?

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Smoking and depression

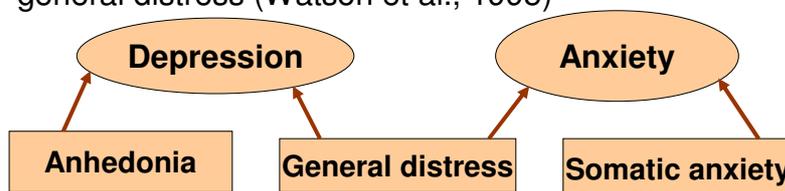
- The association between smoking and depression or depressive symptoms has been well established in both cross-sectional and longitudinal research, however cause-and-effect relationship is still not clear.
- The research strategies include
 - comparison of depression score between groups of smokers and nonsmokers: the effect sizes vary from small to high;
 - comparison of clinically depressed and non-depressed people: the relative risk of smoking is increased in clinically depressed population;
- Major depression diagnosis increases the risk of both progression to daily smoking (OR=3,00, Breslau et al., 1998) and development of nicotine dependence (OR=2,06, Breslau et al., 1993) in young people.

Smoking and anxiety

- Anxiety and anxiety disorders have been associated with increased prevalence of smoking in some cross-sectional research (McCabe et al., 2004; Patton et al., 1996)
- Higher trait anxiety and depression scores were found in young smoker students in a Hungarian sample (Dudas, et al., 2005)
- One research did not find association between smoking and trait anxiety (Takemura et al., 1999)
- At least one study showed that anxiety disorders can delay smoking onset among adolescents (Costello et al., 1999)
- A longitudinal study showed that the incidence of anxiety disorders was higher among smokers at follow-up, whereas baseline anxiety did not increase the risk of smoking in adolescents (Johnson et al., 2000)

Research hypothesis

- Average correlation between depression and anxiety typically falls in .45 and .75 range (Clark and Watson, 1991)
- Depression and anxiety are different but closely related constructs. The common element of both constructs is general distress (Watson et al., 1995)

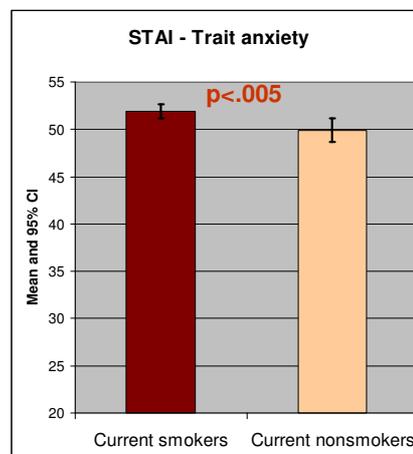
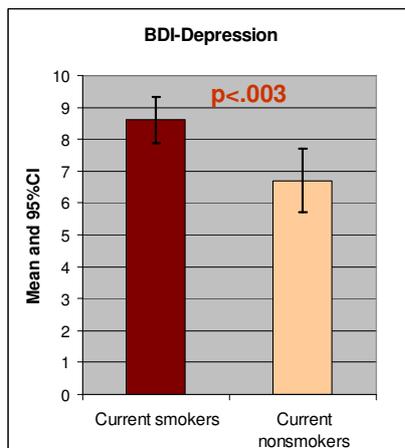


Our hypothesis: **depressive symptomatology mediates the association between smoking and trait anxiety**, therefore controlling depressive symptoms the relationship between anxiety and smoking diminishes to non significant one.

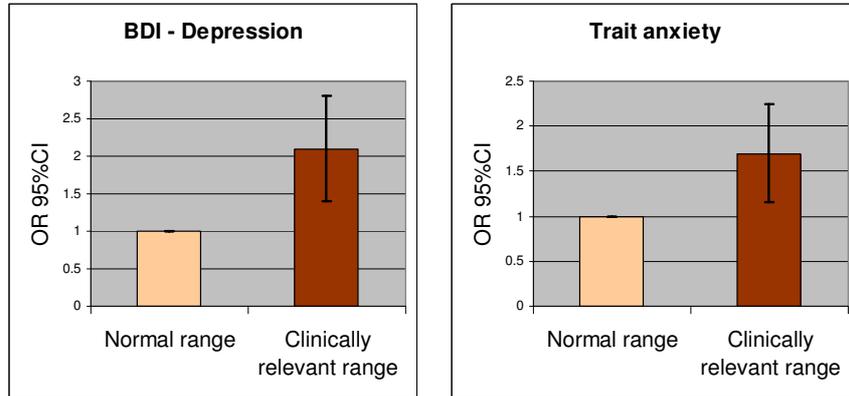
Methodology

- Cross-sectional questionnaire study
- Sample:
 - 574 young males who were the subjects of recruitment to their compulsory military service in Hungary
 - The mean age was 20.7 (SD=1,77, range:18-27)
- Measurement – self-report questionnaires
 - Smoking status
 - Beck Depression Inventory – 21-item version
 - Spielberger’s State-Trait Anxiety Inventory

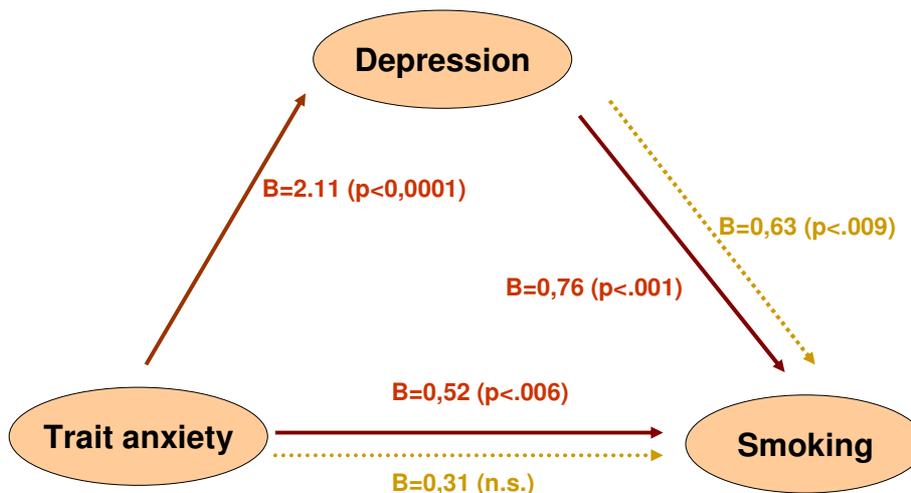
Depressive symptoms and anxiety – comparison of means



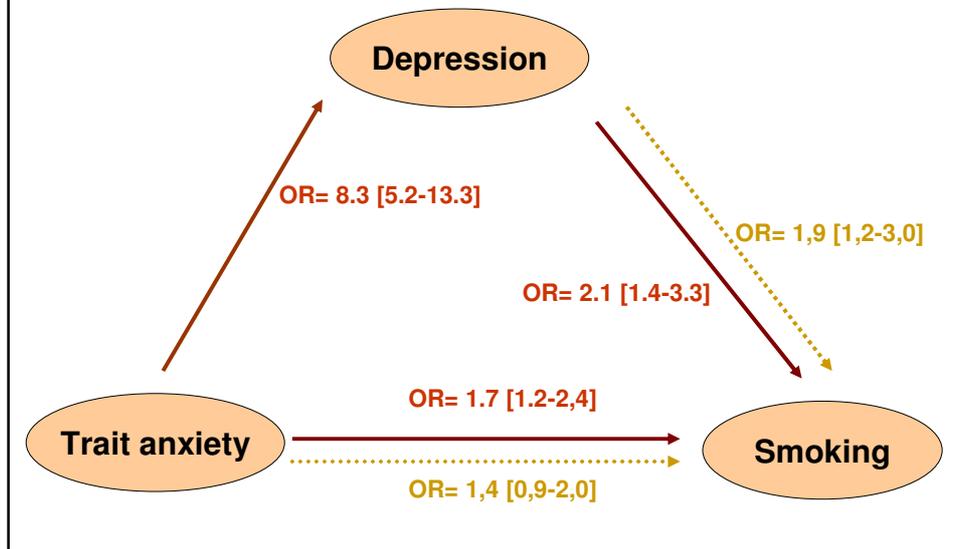
Depressive symptoms and anxiety – clinically relevant symptoms



Analysis of mediation



Analysis of mediation



Conclusions

- When depression is controlled, trait anxiety does not predict smoking status in a young male sample. The similar result was found in a sample of medical patients (Kick and Cooley, 1997).
- Association between smoking and anxiety is either an artifact or mediated by the general distress as the common core between depression and smoking.
- Knowing more on the determinants of smoking can help us to focus on the empirically supported correlates of smoking behavior in order to construct more efficient programs.
- Smoking prevention programs should focus on depressive symptoms and general distress. Enhancement of coping with depressive symptoms and general distress might help to prevent smoking initiation and maintenance.
- On the other hand, there is a need for empirical support that mental health promotion program can prevent also smoking initiation and maintenance.

