Self-regulation, normative beliefs in alcohol use and sexual behaviour

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Background

Emerging adulthood and university environment

- EA, the period between 18 and 25 years with the behavioral risk at the highest rates across the lifespan (Arnett, 2000; Quinn, 2010).

- EA allows the pursuit of new, intense and risky experiences with greater freedom than in any other developmental period especially in the university environment where the lack of direct supervision is clear.

- **Negative consequences:** cognitive and neurological impairments, alcohol dependence, STIs, personal injuries or death, academic failure and skipping classes, psychological problems, delinquent and health risky behaviour (Boot, 2010; Corbin, 2011).

- Alcohol use (AU) together with other licit and illicit drugs causing more than 4% of all deaths in EU population among 25 and 39 years (McALANEY, 2015).
Background

Specifics of alcohol use and sexual behaviour on college

- More hazardous alcohol use – binge drinking (heavy episodic consumption, 5 / 4 drinks per occasion; rates 25 to 40%), (Johnston, 2009).

- Entry into university is associated with significant increase of binge drinking during the first semesters (Johnston, 2010), also during peer groups’ gatherings.

- Sexual risk behaviour (SRB) - characterized by a steep increase is likely to double in: (1) the number of new sexual partners; (2) low rates of condom use; (3) short relationships; (4) simultaneous use of alcohol or drugs during sex (Fromme, 2008; Scott-Sheldon, 2010).

- The rates of STIs reach the highest rates between 20-24 years, (ECDC; 2015).
Background

Role of normative beliefs on alcohol use and sexual behaviour

- Descriptive normative beliefs (perceptions of the majority of students’ drinking) frequently differ from personal AU as the students overestimates (misperceive) the AU use among peers.
- The misperception is associated with higher rates of AU as the overestimations of peers AU can exert social pressure on the individual and consequently lead them to adapt their own AU to match this perceived norm (McAlaney, 2011).

- Students has also tendency to overestimated their peers' levels of sexual activity e.g.: (1) numbers of partners; (2) incidence of STIs; (3) rates of unintended pregnancies. But underestimated rates of condom use (Scholly, 2005).

- Misperceived beliefs towards sexual behaviour may predict (1) multiple sexual partners; (2) inconsistent condom use (Li, 2011; Scholly, 2005).
Background

Role of self-regulation (SR) on alcohol use and sexual behaviour

- Despite strong effect of NB on risk behaviour some individuals tent to resist-how and why?!

- SR - capacity to regulate emotions, thoughts, attention, and behaviour in the service of a goal (e.g. planning, delay gratification), (Hofmann, 2008; Quinn, 2010).

- SR as a protective factor against AU and SRB – (1) direct effect; or (2) moderation

- High levels of SR negatively predict the AU and negative consequences of AU (Wills, 2002; Hustad, 2009, Brutovska, 2015).

- High levels of SR negatively predict the levels SRB (Galliot, 2007; Brutovska, 2015).

- Buffering effect of SR against risk factors – normative beliefs (Quinn, 2010).
Aims

- To examine whether normative belief (T1) plays a negative role toward alcohol consumption and sexual risk behaviour (T2)

- To examine whether self-regulation (T1) plays protective role against alcohol use and sexual risk behaviour (T2)
  - (1) directly – main effect
  - (2) as moderator of risk factor – buffering effect

Diagram:
- Normative beliefs (T1) → Self-regulation (T1) → Alcohol use / Sexual risk behaviour (T2)
Methods

Sample: SLiCE (Student Life Cohort in Europe); www.slice-study.eu

• First year university students; 1 year follow up study:
  • Czech Republic (N=347; 66% F, 21.4 years); T2 (N = 195)
  • Hungary (N=771; 66% F, 21.2 years), T2 (N = 188)
  • Lithuania (N=965; 70% F, 20.0 years), T2 (N = 246)
  • Slovakia (N=592; 75% F, mean age 20.8), T2 (N= 364)

• Alcohol use - was measured by AUDIT-C, (Babor et al., 2001); 3-item alcohol screening test for the early detection of risky drinking (e.g. “How often do you have a drink containing alcohol?”). 5-point scale (0 - none to 4 daily or almost daily). Total score: 0-12.

• Descriptive normative beliefs - The items related to the behaviour of a typical student, e.g. “How often do you think a typical student at university has a drink containing alcohol?” Same 5-point scale as in AUDIT. Total score: 0-12.
Methods

• **Short Self-Regulation Questionnaire** (Carey, 2004), 31-items are scored on a 1–5 scale (strongly disagree–strongly agree) with a higher score indicating higher SR.

• **Sexual risk behaviour** – 2 separate items regarding (1) number of sexual partners in last 12 months (0-1/ 2 and more); (2) condom use during first sex with new partner (always / not always).

• **Descriptive normative beliefs** - The items related to the sexual behaviour of a typical student, e.g. “Within the last 12 month, with how many partners do you think the typical student at your university has had sex?”(0-1/ 2 and more).

• **Statistical analyses**
  • Linear (AU) and binary (SRB) regressions were used to test main and buffering effect of SR on AU and SRB.
Results

Alcohol consumption and alcohol normative beliefs T1/T2

Czech Republic  | Hungary  | Lithuania  | Slovak Republic
AU_T1  | AU_T2  | NB_T1  | NB_T2

M

[Graph showing comparisons for different countries and time points for alcohol consumption and normative beliefs]
Results

Two and more sexual partners (last 12 months) and normative beliefs towards number of sexual partners T1/T2
Results

Inconsistent condom use with new partner and normative beliefs towards condom use with new partner $T_1/T_2$

![Bar chart showing condom use percentages across different countries and time points](chart.png)
## Results

### Table 1. Regression models predicting alcohol consumption at T2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Czech Republic n=195</th>
<th>Hungary n=188</th>
<th>Lithuania n=246</th>
<th>Slovak Republic n=364</th>
<th>All respondents n=993</th>
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<tbody>
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<td><strong>Step 1</strong></td>
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<tr>
<td>SR</td>
<td>-.11</td>
<td>-1.41</td>
<td>.160</td>
<td>-.29</td>
<td>-3.33</td>
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<tr>
<td>NB</td>
<td>-.01</td>
<td>-.13</td>
<td>.895</td>
<td>.19</td>
<td>2.11</td>
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<td><strong>Step 2</strong></td>
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<td>SR \times NB</td>
<td>.001</td>
<td>.02</td>
<td>.98</td>
<td>-.23</td>
<td>-2.61</td>
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</tbody>
</table>

Controlled for gender and alcohol consumption T1; SR = self-regulation at T1; NB = alcohol normative beliefs at T1
Figure 1. Moderation effect of self-regulation (T1) on relationship between AU (T2) and normative beliefs (T1) among all students.
## Results

**Table 2. Regression models predicting number of sexual partners and inconsistent condom use at T2**

<table>
<thead>
<tr>
<th>No. Sexual partners</th>
<th>Czech Republic n=195</th>
<th>Hungary n=188</th>
<th>Lithuania n=246</th>
<th>Slovak Republic n=364</th>
<th>All respondents n=993</th>
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<tr>
<td>SR</td>
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<td>.96</td>
<td><strong>.98</strong></td>
<td>.97</td>
<td>1.01</td>
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<tr>
<td>NB</td>
<td><strong>1.25</strong></td>
<td>1.04</td>
<td><strong>1.21</strong></td>
<td>1.12</td>
<td><strong>1.26</strong></td>
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<td><strong>Step 2</strong></td>
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<tr>
<td>SR x NB</td>
<td><strong>.81</strong></td>
<td>.89</td>
<td><strong>.79</strong></td>
<td>.75</td>
<td>.97</td>
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<tr>
<td><strong>Condom use</strong></td>
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<td><strong>Step 1</strong></td>
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<td></td>
</tr>
<tr>
<td>SR</td>
<td>1.01</td>
<td>.99</td>
<td><strong>.97</strong></td>
<td>.94</td>
<td>1.03</td>
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<tr>
<td>NB</td>
<td><strong>3.97</strong></td>
<td>1.49</td>
<td><strong>9.31</strong></td>
<td>2.93</td>
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<tr>
<td>SR x NB</td>
<td>1.01</td>
<td>.98</td>
<td><strong>.93</strong></td>
<td>.90</td>
<td>.99</td>
</tr>
</tbody>
</table>

Controlled for gender and risk behaviour at T1; SR = self-regulation at T1; NB = sexual normative beliefs at T1
Figure 2. Moderation effect of self-regulation (T1) on relationship between normative beliefs towards sexual partners (T1) and number of sexual partners (T2).
Conclusion and further research

High rates of AU and no significant change in one year.

Similar rates regarding number of sexual partners but different regarding condom use.

NB – risk factors; strongly associated with AU and SRB

SR – protective factor; direct association with AU and SRB
Conclusion and further research

- SR as a moderator; buffer against overestimated normative beliefs in risky alcohol use and number of sexual partners.

- SR and NB may play a key factor in prevention strategies.

- The intervention should be focused on several types of health risk behaviours instead of one.
Thank you
for your attention

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