Intentional Self-Regulation, Self-Efficacy, and the Ability to Refuse Substances

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INTRODUCTION
- Substance use and experimentation begins early
  - 18.8% of U.S. high school students report drinking before age 13 (CDC, 2013)
  - 17.6% of U.S. middle school students report trying a tobacco product (CDC, 2013)
- Refusal skills may be crucial in preventing early initiation of substance use
- Refusal skills
  - Without appropriate social skills, youth increase or decrease their own substance use according to their closest friend’s use (Allen, Chang, Szwedo, Schad, & Marston, 2013)
  - Refusal skills could help youth better handle peer pressure
- Intentional self-regulation
  - Defined as engaging in behaviors that focus on personal goal achievement and that enhance self-development and functioning (Geistdoerffer & Lerner, 2008)
  - Associated with less depression, fewer risk behaviors, and less delinquency (Geistdoerffer & Lerner, 2007)
- Self-Efficacy
  - Defined as one’s ability to perform certain activities
  - Associated with less drug use (Ludwig & Pittman, 1999)
  - May provide the confidence needed to refuse substance use
- Intentional Self-Regulation and Self-Efficacy
  - Intentional self-regulation may also be linked with self-efficacy. Engaging in activities to advance oneself may promote beliefs about one’s competency and abilities.

RESEARCH QUESTIONS
- Does intentional self-regulation predict refusal skills?
- If yes, does self-efficacy mediate this relationship?

Participants
The sample included 147 (51.4% girls) 6-6th graders aged 9-11 years (N=10.8 years). Participants were mostly white (85%).

MEASURES
- Intentional Self-Regulation (ISR): 9 items asking about steps taken to achieve a goal: range 1 (not at all like me) to 5 (exactly like me); β = 0.82. (Geistdoerffer & Lerner, 2007)
- Self-Efficacy: 8 items asking about one’s ability to live up to expectations and stand up for oneself: range 1 (not at all sure) to 4 (very sure); α = 0.78. (Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003)
- Refusal skills: 4 items asking about one’s ability to refuse tobacco, alcohol, prescription, and other drugs: range 1 (not at all sure) to 4 (very sure); α = 0.90. (Macht & Warren, 2006)

RESULTS
- ISR is directly associated with refusal skills
- Self-efficacy fully mediated the relation between ISR and refusal skills
  - Higher ISR is associated with higher self-efficacy, which is in turn associated with more confidence in one’s refusal skills
  - A Sobel test confirmed that mediation was significant (Z = 2.38; SE = 0.03, p = 0.02)

DISCUSSION
- ISR is directly related to refusal skills, suggesting that having personal goals and the desire to enhance oneself may promote the belief that they could “say no” if offered a substance. Youth with high ISR may recognize the barriers to goal achievement that substances could cause and therefore wish to abstain from substance use.
- While the direct link between ISR and refusal exists, self-efficacy fully mediated this relationship. This suggests that self-efficacy may give youth the confidence to refuse substances. ISR may help youth to attain these abilities and confidence, but it is feeling that one has that ability that gives youth the confidence to refuse substances.
- It is important to note that the sample is relatively young, and many participants have likely not faced difficult decisions about substance use. As shown in Table 1, the means for refusal skills are fairly high, indicating that youth may have overestimated their ability to refuse substances in a real life situation. Therefore, follow ups are essential to determine whether this relation continues later in adolescence.
- Longitudinal analyses would allow for further examination of the relation between ISR and self-efficacy, as this relation may be a reciprocal one. Understanding how these two constructs are related could help better understand the role they play in refusal skills. Additionally, behavior itself should be examined to see the role ISR and self-efficacy play in reduction of actual substance use behaviors.
- This research suggests that intervention efforts should focus on ISR as a strategy to increase the ability to refuse drugs. Increasing ISR may increase self-efficacy, which may in turn increase one’s ability to refuse drugs. Focusing on these traits may help youth become more confident in their ability to “say no” and give youth the skills to effectively deal with peer pressure situations.

Selected References

Table 1. Descriptive statistics for major study variables

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<thead>
<tr>
<th>Variable</th>
<th>Means</th>
<th>SD</th>
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<tbody>
<tr>
<td>Intentional Self-Regulation</td>
<td>3.60</td>
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<td>Self-Efficacy</td>
<td>3.40</td>
<td>.51</td>
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<td>Refusal Skills</td>
<td>3.85</td>
<td>.46</td>
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Table 2. Mediating Effect of Self-Efficacy on the Relation Between Intentional Self-Regulation and Refusal Skills

<table>
<thead>
<tr>
<th>Model</th>
<th>Predictor: Intentional Self-Regulation</th>
<th>Covariates: Age</th>
<th>Gender</th>
<th>Refusal Skills</th>
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<td>0.05</td>
<td>0.23**</td>
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<td>0.04</td>
<td>0.04</td>
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<td>0.40***</td>
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<td></td>
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<td>0.07</td>
<td>0.06</td>
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Note: *p < .05, **p < .01, ***p < .001

Figure 1. Mediation Model

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