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**Question.(Q.)** Dear Professor Sussman, in your extensive experience in the research of tobacco cessation programs (in particular), what would be, from your work, the most effective program if you had to choose one? And why?

**Answer (A.)** I would check out the Fiori et al. (2008), Treating Tobacco Dependence report for effective components of tobacco use cessation programming. For adults, combining motivation enhancement, cognitive behavioral strategies, and pharmacologic adjuncts has been recommended. My work has been more with teenagers than adults. I was the primary developer of Project EX, which has shown effects in eight controlled trials now, in China, India, Russia, Spain, and the U.S. However, it would be a conflict of interest for me to choose it for teens. In terms of effective elements for teens, motivation enhancement, cognitive-behavioral skills, and alternative medicine elements, spiced with some fun are important. In general, pharmacologic adjuncts are not recommended for teens.

**Q.** From your experience, do you think that there are any psychological dimensions that facilitate tobacco consumption and other drugs? Can you explain the key aspects regarding this domain?

**A.** There are lots of predictors of alcohol, tobacco, and other drug (ATOD) use. Sometimes people conceptualize them as involving levels of influence (large physical and social environment, microsocial environment, cognition, neurobiology). I like to use a model I call the PACE model. The PACE model is composed of components including access to addiction objects or services (pragmatics), relative enjoyment of engagement in the addictive behavior (attraction), developing a language about the addictive behavior experience (communication), and fulfilling one's hopes for satiation through the addiction (expectation).

**Q.** From your research, what do you think about the use of Electronic Cigarettes? Do they increase addiction among young people? On the other hand, can they also help to reduce consumption in smokers? Are they less harmful to health? What have been your study's findings?

## STEVE SUSSMAN – SOME QUESTIONS ABOUT ADDICTIONS

**A.** I am a Co-Investigator on a grant with Adam Leventhal and others at USC. We are finding that youth who use e-cigarettes are relatively likely to use combustible cigarettes in the near-future. We are also finding that about 25% of youth who use either e-cigarettes or combustible tobacco use both products (dual users). While there are fewer carcinogens in e-cigarettes (i.e., 10 versus 60), that does not mean that they are safe. Also, the chemical in e-cigarettes may cause lung and heart diseases. Nicotine, itself, can cause long-lasting harm to executive cognitive processing among youth. Thus it is not a good idea for youth to use any nicotine-containing product. As for older adults who have been using combustible cigarettes for a long time, it might be possible that e-cigarettes could be a harm reduction device. Little research exists as of yet, however, to support the possibility that combustible smokers can fully switch to e-cigarettes and then later perhaps quit e-cigarettes as well.

**Q.** In the article “Alcohol, Tobacco, and Other Drug Misuse Prevention and Cessation Programming for Alternative High School Youth: A Review” (Steve Sussman , Bridget Arriaza , & Timothy J. Grigsby, 2014), what were the main findings and implications for this subjects’ study in the future?

**A.** Relative to youth in regular high schools, alternative high school (AHS) youth are at high risk for ATOD misuse. We completed a systematic, exhaustive literature search to identify ATOD misuse prevention and cessation research studies with AHS youth. We found 23 ATOD misuse prevention or cessation program evaluations. This review indicated that successful efforts have focused on instruction in motivation enhancement, life coping skills, and decision making. We also found that programming is effective delivered in the classroom or as a school-based clinic. There is little evidence, though, that this programming is effective when delivered through other modalities such as via computer or bridging beyond the school setting. Certainly more such studies are needed.

**Q.** “Post-traumatic growth, stressful life events, and relationships with substance use behaviors among alternative high school students: A prospective study “ (Thalida Em Arpawong, Steve Sussman, Joel E. Milam, Jennifer B. Unger, Helen Land, Ping Sun, & Louise A. Rohrbach); In this article, researchers claimed that “*A highly stressful life event (SLE) can elicit positive psychosocial growth, referred to as Post-traumatic Growth (PTG) among youth*”. You studied group PTG and the number of SLE for their influence on substance use behaviors among a sample of older, diverse alternative high school students participating in a drug prevention program. This study was conducted two years later. What conclusions you consider most prominent and important for future work?

**Answer:** Em Arpawong really is the expert on this topic. In this first longitudinal study of its kind, we found that greater PTG scores were associated with lower frequencies of alcohol use, getting drunk on alcohol, binge drinking, marijuana use, and less substance abuse at two-year follow-up (but was not associated with cigarette or hard drug use). Also, PTG did not moderate the relationship between cumulative number of SLEs and substance use behaviors; rather PTG appeared to be protective against negative effects of a single, life-altering SLE. That is, to the extent that one is able to develop a positive life attitude (appreciate the value of one’s own life, feel a sense of direction, of spirituality, of being close with others, compassion, inner strength, involvement) resulting from a dramatic, threatening life event, one may cherish life more. This does not mean that post-traumatic stress symptoms (PTS) would not be present; only that one is relatively likely to cherish themselves and others through surviving. Future work might investigate the relations of PTS and PTG among at-risk youth over time.

**Q.** From your vast research, what are the most effective policies for the prevention of addictive substance use?

**A.** I don’t know. That is a difficult question. Regarding tobacco use prevention, I provide an analysis of incremental effects of different components (Sussman et al., 2013). Raising prices by a great deal seems a rather effective component. Comprehensive life skills/social influences programs, if institutionalized, may show effectiveness. Certainly, the more directed someone is away from substance use activities, and toward fulfilling personal and social activities, the less likely the person is to use drugs. This direction needs to come from within, supported by others. Trust and love are powerful tools in life.

**Q.** Finally, as the leading investigator of Project Towards no Drug Abuse (Project TND), could you summarize its main achievements? And what do you think future holds for this specific field of study?

**A.** Across 7 clustered randomized controlled trials, this project demonstrated prevention of hard drug use in 7 of the trials, alcohol use in 4, marijuana use in 3, and cigarette smoking in 2. Effects on hard drug use were found up to 5-years post-program. There is still a need to identify the most important components of Project TND (Sussman, 2015). With all prevention programming there needs to be a means to institutionalize programming.

**Dr. Humberto Rodrigues [Editor-in-Chief] – International Journal of Psychology and Neuroscience**