General Self-Worth and Drug Use: 1995 German Youth in Sports (Kurz & Endrikat, 2004)

Emanuella Rozenfeld

Columbia University in the City of New York

Summer Internship Program in Psychological Science

Background

It has been known that one's tendency to self-administer drugs is influenced by their self-esteem (Alavi, 2011). From there, the question of which variable is directly correlated with self-esteem arises. Literature from 2016 offers an answer to this question -- physical activity is directly associated with self-esteem (Zamani et al., 2016). Furthermore, it has been found that exercise "reduces drug self-administration" (Smith & Lynch, 2012). But, which drugs in particular? The goal of this 1995 study was to examine the effect of self-worth in people who played sports, and were physically active, on their tendency to do different drugs. In this specific study, "drugs" have been categorized into 5 categories: (1) Nicotine (2) Hash/marijuana (3) Beer/wine/champagne (4) Schnapps (5) Stimulants/getting high.

My **research question** is: if individuals exercise regularly, and have a high self-worth, are they more prone to do drugs? My hypothesis is that the higher the average self-worth, the lower the sum of their drug-use is.

Sample

A survey sample consisting of 3,426 individuals was conducted in Germany in 1995. The individuals in the sample were youths, aged 11-20 years old, participating in sports. The questions from the questionnaire that I chose target sports club members. The samples were cluster samples, and quota samples. The participants were asked a plethora of questions that dealt with different variables. The 2 variables my project focuses on are: self-worth and drug-use. The individuals were presented with different questions regarding these 2 variables and they had to measure their agreeableness on a 5-point Likert scale for regarding self-worth and a 4-point Likert scale regarding drug-use.

Measures

The **self-worth questions** were asked on a 5-point Likert scale from (1) being "not true at all" to (5) "completely correct." The questions were: "To what extent do you agree with the following statements? (1) "On the whole, I am satisfied with myself." (2) "Actually, I can be proud of a few things about myself." (3) "Sometimes I wish I were different." (4) "Sometimes I feel completely unimportant." (5) "I really want to stay the way I am now." (6) "I don't think very highly of myself." (7) "Sometimes I have the impression that I am somehow superfluous." (8) "I think I'm all right.""

The **drug-use questions** were asked on a 4-point Likert scale: (1) "never" (2) "rarely" (3) "at least once a week" (4) "daily." The questions were as follows: "If you think about the last 3 months: (1) "How often have you smoked cigarettes?"(2) "How often have you smoked hash / marijuana?" (3) "How often have you drank beer / wine / champagne?" (4) "How often have you drank something harder (schnapps, etc.)?" (5) "How often have you taken other drugs that stimulate you / get you high?""

Acknowledgements

Thank you to the Columbia University SIPPS team and a special thank you to my outstanding mentors Margaux Wienk and Anshu Patel.

Results

Scatterplot: Self-worth and Drug-use relationship

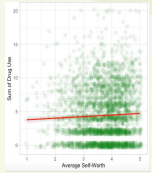

Figure 1. Line of best fit between sum of drug use and average self-worth

The p-value is 0.01323, which demonstrates a significant effect, although a small one. The correlation coefficient is 0.04382578, which demonstrates a small correlation. The effect, therefore, is not practically relevant.

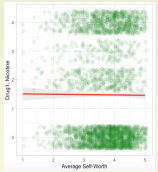

Figure 2. Association between Nicotine and Self-worth

Tobacco is illegal for those under 18 years old in germany (tobacco contains nicotine). The correlation coefficient is -0.005201527 . The p-value is 0.7688; it's not statistically significant. The slope is practically 0; there's no effect. This suggests that self-worth doesn't really influence nicotine, or maybe it could be because of the legal aspect.

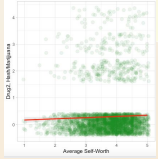

Figure 3. Association between Hash/Marijuana and Self-worth

The correlation coefficient is 0.03977884, and the p-value is p-value 0.02455 which shows a small positive effect. These findings make sense considering in 1995 Germany marijuana was illegal.

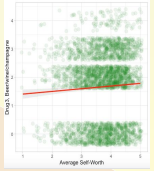

Figure 4. Association between Beer/Wine/Champagne and Self-worth

The drinking age for beer in Germany in 1995 was 16. The legal age for spirits (20%+ of alc) was 18. This graph supports this. The correlation coefficient is 0.0565218 and the p-value is 0.001393 showing a positive effect. This yields me to my conclusion that the more self-worth one has, the more one goes out with friends and most social situations involve drinking.

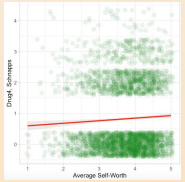

Figure 5. Association between Hard Spirit (i.e., Schnapps) and Self-worth

The correlation coefficient is 0.05353249 and the p-value is = 0.002471, which shows a significant effect. This finding is similar to figure 4.

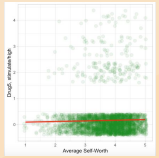

Figure 6. Association between Stimulants (drugs that get you high) and Self-worth

The correlation coefficient is 0.02830012, and the p-value is 0.1097 which shows that the effect is not significant. We can conclude that it's mainly the social drugs (beer/wine/champagne/harder spirits, and to a lesser extent marijuana) whose consumption is affected by self-worth among sportsmen. Perhaps it's because these drugs are readily available (i.e., supermarket).

Conclusions

My hypothesis was not supported. Self-worth is positively related to drug-use but seems to be predominantly related to social drugs (i.e., beer/wine/champagne/harder spirits). This indicates that with self-worth increasing, so do social gatherings. My findings build upon current literature. It has been found that social factors play a role in drug consumption (Sudhinaraset & Takeuchi, 2016). This notion along with the fact that self-worth leads to more social relationships (Harris & Orth, 2020) supports my conclusion. This can be demonstrated in Figure 4 and Figure 5. Further studies should investigate other drugs, those that are not readily available, and those not as popular in social gatherings (such as hallucinogens, dissociatives, inhalants).

Limitations

The study was limited by the amount of drugs assessed. A larger spread of drugs (i.e., caffeine, pain killers, drugs that aren't readily available) would provide a further understanding in the relationship between drug-use and self-worth in sports. Furthermore, the sample should've explored smaller age groups. 11 year olds are less likely to go out drinking than 20 year olds, and 11 year olds aren't at a legal age for the drugs assessed. I suggest that ages assessed should've been 16-20.

References

1) Kurz, D., Brinkhoff, K.-P., Tietjens, M., & Endrikat, K. (2004). Youth sport study 1995. Primary data. [Translated Title] (Version 1.0.0) [Data and Documentation]. Trier: Center for Research Data in Psychology: PsychData of the Leibniz Institute for Psychology ZPID.
2) Alavi H. R. (2011). The Role of Self-esteem in Tendency towards Drugs, Theft and Prostitution. Addiction & health, 3(3-4), 119–124.
3) Zamani Sani, S. H., Fathirezaie, Z., Brand, S., Pühse, U., Holsboer-Trachsler, E., Gerber, M., & Talepasand, S. (2016). Physical activity and self-esteem: testing direct and indirect relationships associated with psychological and physical mechanisms. Neuropsychiatric disease and treatment, 12, 2617–2625. https://doi.org/10.2147/NDT.S116811
4) Smith, M. A., & Lynch, W. J. (2012). Exercise as a potential treatment for drug abuse: evidence from preclinical studies. Frontiers in psychiatry, 2, 82. https://doi.org/10.3389/fpsyt.2011.00082
5) Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. T. (2016). Social and Cultural Contexts of Alcohol Use: Influences in a Social-Ecological Framework. Alcohol research : current reviews, 38(1), 35–45.
6) Harris, M. A., & Orth, U. (2020). The link between self-esteem and social relationships: A meta-analysis of longitudinal studies. Journal of personality and social psychology, 119(6), 1459–1477. https://doi.org/10.1037/pspp0000265