

STASH, Vol. 11(8) - Play through the pain: Participation in organized sports and opioid use among adolescents

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Key stakeholders, including [presidential candidates](#), are speaking out about to the burgeoning problem of [opioid misuse and dependence](#), which can strike any community. To illustrate, according to the American Society of Addiction Medicine, each day, 2,500 American youth abuse a prescription pain reliever for the first time. It follows that those who might have an increased likelihood of having such a prescription are an important group to monitor. As part of our [Special Series on Addiction and Sports](#), STASH reviews a study of medical opioid use and misuse among adolescent athletes (Veliz, Epstein-Ngo, Meier, Ross-Durros, McCabe, & Boyd, 2014).

Methods

- Researchers analyzed data from adolescents (ages 11-19) who participated in an online longitudinal study of substance use among adolescents, the Secondary Student Life Survey (SSLS; Johnston et al., 2014).
 - 83% of participants completed 3 waves of data collection: 2009-2010, 2010-2011, 2011-2012.
 - The researchers restricted analyses to participants who were in 7th-10th grade at the time of the first wave of data collection (N=1,540).
- Participants answered several questions about how often they used or misused prescription opioids (e.g. hydrocodone, acetaminophen, oxycodone, codeine, propoxyphene, morphine) in the previous 12 months. These questions included:
 - “Has a doctor, dentist, or nurse prescribed pain medication for you?” (i.e., medical use)
 - “Have you used too much (e.g., higher doses, more frequent

doses) of your prescribed pain medication?” (i.e., medical misuse)

- Researchers examined the relationship between participation in organized sports and use/misuse of opioid medications, among boys and girls separately.

Results

- Girls were [significantly](#) more likely than boys to report medical use and misuse of prescription opioids in the previous 12 months. Among girls, participation in sports did not affect opioid use.
- Boys who played organized sports were [significantly](#) more likely than boys who did not play sports to report medical use and misuse in the previous 12 months. For example, those who played sports were nearly three times more likely to misuse opioid medications at least once. (See Table 1.)

| | Medical Use | | | Medical Misuse | | |
|--|-----------------------------|-------------------------------|----------------------|-----------------------------|-------------------------------|----------------------|
| | Used on at least 1 occasion | Used on only 1 or 2 occasions | Used on 3+ occasions | Used on at least 1 occasion | Used on only 1 or 2 occasions | Used on 3+ occasions |
| Participated in organized sports (n = 477) | 1.4*(1.03-1.92) | 1.27(.895-1.79) | 1.95*(1.03-3.69) | 2.99*(1.22-7.41) | 3.73*(1.1-12.7) | 2.33(.618-8.78) |

Figure. Adjusted [odds ratios](#) (and 95% [confidence intervals](#)) comparing medical use/misuse of opioid medication among males who participated in organized sports versus those who did not. Results marked with an asterisk indicate [significantly higher risk](#) among those who played organized sports.

Limitations

- A regional sample from southeast Michigan might not be representative of the population of adolescents in the US, generally, or other locations.
- The analysis doesn't take into consideration other mitigating factors such as adolescents' social environments/influences that may lead to substance use.
- The SSLS did not include questions to determine if opioids were initially prescribed for a sports-related injury among sports participants.

Conclusions

This study suggested that girls have greater risk for opioid use/misuse than boys;

however, among boys, those who participate in sports are at elevated risk compared with those who do not. Among boys in particular, the use and misuse of medical opioids might be a by-product of a “play through the pain” mentality encouraged by the culture surrounding sports, especially the idea that playing sports demonstrates and develops masculinity (Messner, 1990). Further research into other contributing factors of adolescent athlete drug abuse (e.g., social networks, reason for prescription) is necessary.

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What do you think? Please use the comment link below to provide feedback on this article.

References

Johnston L.D., O'Malley P.M., Bachman J.G., & Schulenberg J.E., (2012). *Monitoring the future: A continuing study of American youth (12th-grade survey), 2011-form 1 data codebook*. Ann Arbor (MI): Institute for Social Research, University of Michigan.

Messner, M.A. (1990). *Power at play: Sports and the problem of masculinity*. Boston, MA: Beacon Press. Veliz, P., Epstein-Ngo, Q.M., Meier, E., Ross-Durros, P.L., McCabe, S.E., & Boyd, C.J. (2014). Painfully obvious: A longitudinal examination of medical use and misuse of opioid medication among adolescent sports participants. *Journal of Adolescent Health, 54*(3): 333-340.