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Exploring the Relationship Between Bullying and Substance Use

Funding Sponsor

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Presenters



Dr. Laura Crothers

Duquesne University



Chuck Klevgaard

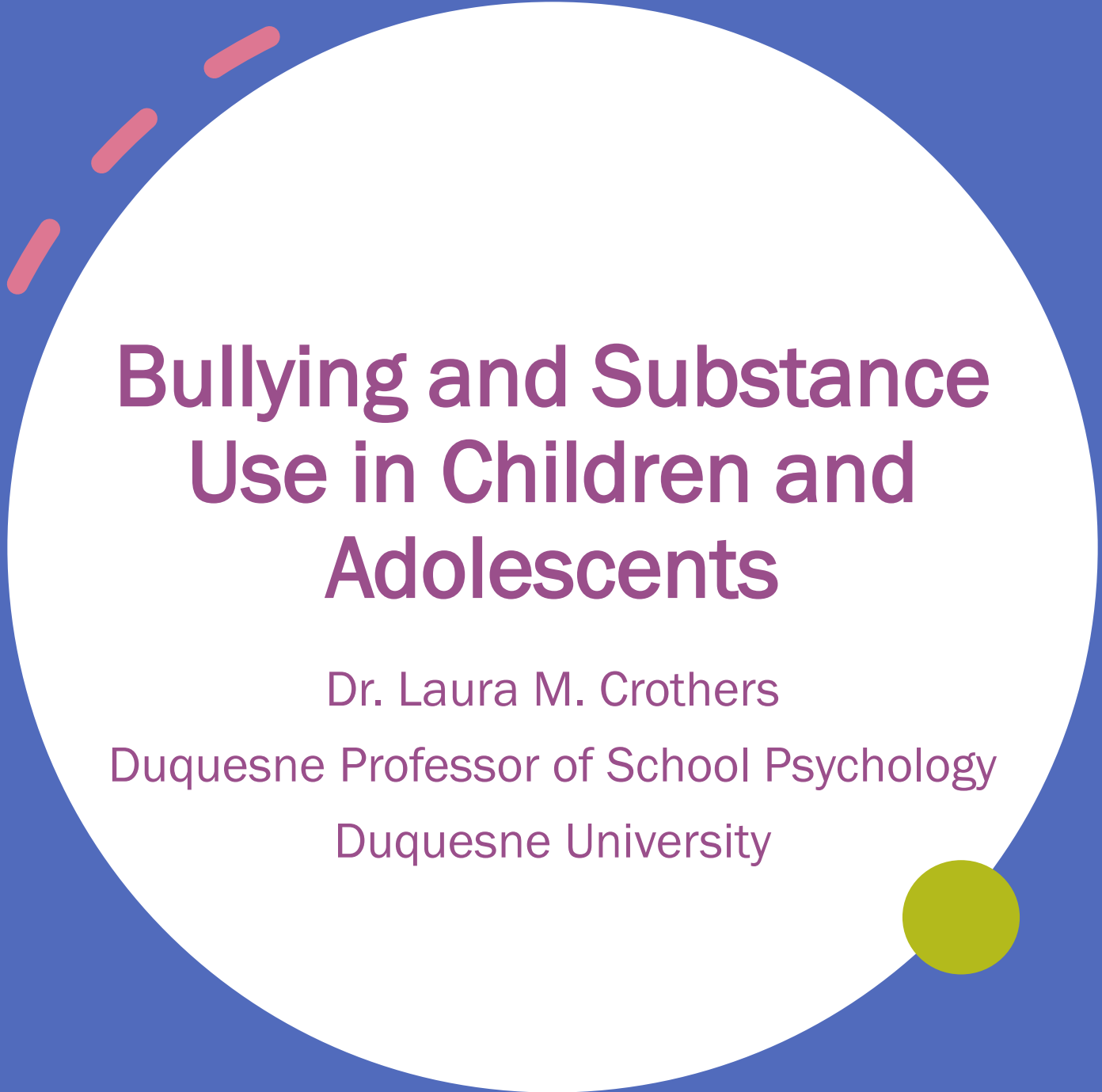
**Education Development
Center**

Moderator



Dr. Charles Irwin

**University of California
San Francisco**



Bullying and Substance Use in Children and Adolescents

Dr. Laura M. Crothers

Duquesne Professor of School Psychology

Duquesne University

What is Bullying?

- Instrumental (non-provoked) aggression against another.
- Behaviors that tend to be repeated over time (Olweus, 1993).
- Power differential between perpetrator and victim (physical, verbal, social).
- Evidence has been provided establishing the commonplace occurrence of bully-victim relationships (~ 30% children reporting moderate to frequent involvement; Nansel et al., 2001).
- Bullying victimization is recognized as a global public health issue (Da Silva & Martins, 2020).

Direct Forms of Bullying - Physical

- Includes hitting, kicking, punching, slapping, pinching, tripping, being physically threatened, being spit upon, stealing from, or vandalizing someone's property (Gladden et al., 2014; Griffin & Gross, 2004; Olweus, 1993; Robers et al., 2013).
- Boys are more likely to use direct physical bullying than females (Robers et al., 2013).
- While these behaviors are easily observed and labeled as bullying, roughly 8% to 21% of students have reported being physically bullied (Robers et al., 2013; Wang et al., 2009).



Direct Forms of Bullying - Verbal

- A perpetrator uses words to mock the victim's intelligence, abilities, appearance, or any other quality or characteristic of the victim (Griffin & Gross, 2004).
- This type of bullying, again, is a form of direct aggression as the bully utilizes the power differential favorable to the perpetrator to harm their target through words (Camodeca & Goossens, 2005).
- Verbal bullying is even more pervasive than physical bullying, with 18% to 53% of students reporting being verbally bullied during the last year (Robers et al., 2013; Wang et al., 2009).

Indirect Forms of Bullying - Cyberbullying

- Cyberbullying, using technology to engage in peer victimization, reflects the key features of traditional bullying:
 - a power imbalance
 - intent to cause harm
 - repetition of unwanted behaviors over time
- *but* through the use of technology such as computers, iPads, and smartphones.
- An online presence on social media sites like Snapchat, Instagram, Twitter, and TikTok may facilitate avenues for cyberbullying (Hinduja & Patchin, 2015; Olweus, 1993).

Indirect Forms of Bullying – Relational Aggression

- The individual's primary focus is to influence or directly control the person's behavior within the dyadic relationship.
- Relationally aggressive behaviors are more intimate than social aggression, which rely upon the group context to inflict psychological damage.
- The intent to harm another may be expressed through the exploitation of a friendship, sarcastic verbal comments, speaking to another in a cold or hostile tone of voice, ignoring, staring, eye-rolling, and "mean" facial expressions.
- These behaviors damage the target's self-esteem and are examples of relational aggression (Archer & Coyne, 2005; Crain et al., 2005; Remillard & Lamb, 2005; Simmons, 2002).

Indirect Forms of Bullying – Social Aggression

- Crothers et al. (2009) hypothesize that the intent of social aggression is to manipulate and damage another's social status or group membership through either covert or overt means.
- Social aggression requires manipulating a social group as the vehicle of harm, such as gossiping, spreading rumors, and social isolation.
- It is more sophisticated than relational aggression since it requires knowledge of social dynamics and the ability to subtly influence or orchestrate others' behavior to achieve desired outcomes.
- The evidence of the damage of social aggression is a diminishment in an individual's social standing (Galen & Underwood, 1997) in the peer group, which damages adolescents' social self-perceptions.

Effects of Bullying Upon Victims

- Emotional (anxiety, depression, school phobia).
- Behavioral (absenteeism, lack of appropriate risk-taking).
- Academic (diminished school performance and achievement).
- Health risks and outcomes (substance use, somatic symptoms, high risk sexual behavior, cardiovascular and mental health risks over the long term).



Effects of Bullying Upon Perpetrators

- Emotional (depression, mood lability).
- Cognitive (moral disengagement).
- Behavioral (conduct disorder; empowerment over others that is unlikely to be sustained in the long-term, non-rule-governed behavior, later criminal behavior, later domestic violence).
- Health risks and outcomes (substance use).

Substance Use in Children in the U.S.

- Illicit substance use, including alcohol, tobacco, and drugs, in childhood and adolescence is one of the foremost public health concerns for this age range in the U.S.
- Research strongly supports the significant association between involvement in bullying and the risk of substance use (Hong et al., 2022)
- Specifically, bullying victimization and perpetration among adolescents is associated with increased illicit substance use.

Pathways among Bullying and Substance Use

- Some researchers have hypothesized that there are risk factors for substance use following peer victimization through the following pathways:
 - *neuroendocrine dysfunction* (changes in structure and function of anterior-paralimbic systems - orbitofrontal cortex, amygdala, anterior cingulate cortex, insula, and striatum – occur following peer victimization) and *developmental changes in hypothalamic-pituitary-adrenal axis (HPA) reactivity* also occur during adolescence, representing a time of increased vulnerability to chronic stress exposure
 - *comorbid mental illness studies* (depression, anxiety, bipolar disorder, schizophrenia) may mediate relations between peer victimization and alcohol/substance use
 - *gene by environment interactions* between genetic variability and experiences of peer victimization on social stress appraisal and negative affect, executive dysfunction, depressive symptoms, and experiences of pain (Tretyak et al., 2022)
 - *sibling aggression* - depressive symptoms and substance use serially mediate the association between sibling aggression victimization and bullying victimization (Lawrence et al., 2023)

Summary of Research Findings

- Using the national Youth Risk Behavior Survey (2011, 2013, 2014, and 2017), research has established the relationship between:
 - Self-reported school or electronic bullying victimization – and –
 - Previous 30-day alcohol use, binge drinking, marijuana use, cigarette smoking, and electronic vaping product use
- Effects were significantly greater for females (Pontes et al., 2022)

Alcohol Use and Bullying (Pontes et al., 2022)

- 9% of adolescents (12-17 years of age; 2018) report drinking alcohol in the month before the National Survey on Drug Use and Health (NSDUH)
- 4.7% of adolescents reported binge drinking in the same period (also associated with cyberbullying; Goebert et al., 2011; Substance Abuse and Mental Health Services Administration [SAMHSA], 2018).
- Underage drinking has also been associated with an increased risk of addiction and other substance use (SAMHSA, 2018)
- White, Latino, African-American victims, female bullies, male bully-victims, female cybervictims, and female victims of bullying appear to be more likely to use alcohol (Chan et al., 2019; Da Silva & Martins, 2020; Lee et al., 2020)
- Perceived by about half of adolescents as being easy to obtain (Substance Abuse and Mental Health Services Administration; SAMHSA, 2003)

Marijuana Use and Bullying (Pontes et al., 2022)

- 12.5% adolescents aged 12 to 17 reported the use of marijuana in the past year (SAMHSA, 2018).
- Perceived by about half of adolescents as being easy to obtain (Substance Abuse and Mental Health Services Administration; SAMHSA, 2003).
- Boccio and colleagues found (2022) that cyberbullying victimization is linked with marijuana vaping in a sample of Florida adolescents.
- Bully/victims (adolescents who are bullied by others, often in person, and then bully others, often online) and cyberbullies are more likely to use marijuana; Lee et al., 2020).

Drug Use (prescription and non- prescription) and Bullying

- Drug use, either through prescription or non-prescription drugs, for the purposes of the feelings and euphoria it produces is considered to be a public health crisis
- Data from the National Survey on Drug Use and Health (NSDUH) showed that in 2016, about 11.8 million individuals aged 12 and older misused prescription drugs during the past year (SAMHSA, 2017).
- Both traditional and cyberbullying victimization has been associated with the misuse of prescription drugs and over-the-counter drugs (Baiden & Tadeo, 2019).

Cigarette Smoking and Vaping and Bullying

- Victimization through traditional bullying is associated with cigarette smoking and vaping in girls (Azagba et al., 2020; Case et al., 2016), and boys in other studies (Livingston et al., 2019).
- Victimization through cyberbullying is associated with cigarette smoking in boys (Case et al., 2016).
- White victims of bullying are less likely to engage in smoking.
- Latino bully/victims are more likely to use tobacco.
- Research is mixed regarding the association with vaping and bullying victimization (Doxbeck, 2020).



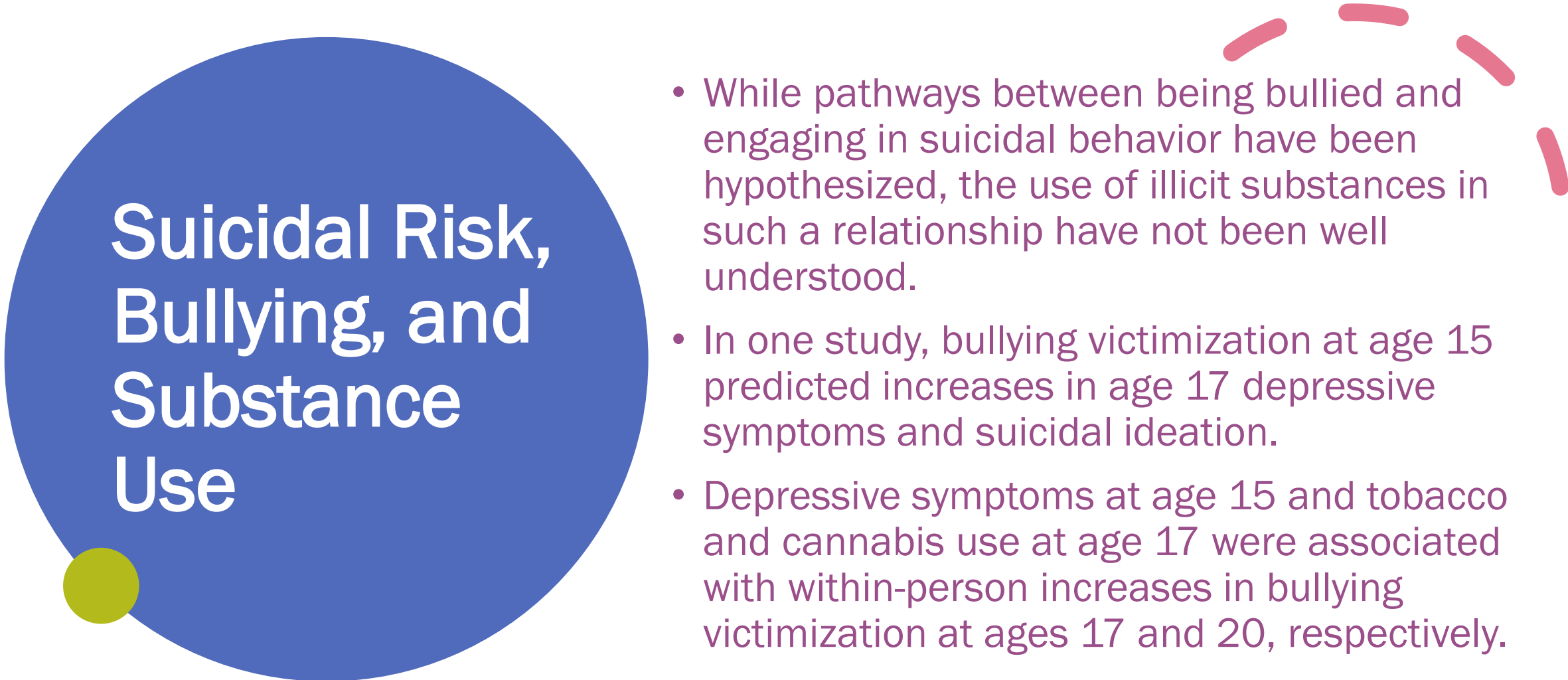
Bullying Perpetration and Later Substance Use

- A meta-analysis was conducted using 28 English-reported publications, reporting on 22 samples, comprising 28477 participants and a qualitative analysis of 31 articles both yielded relationships between bullying perpetration and substance use (Arcadepani et al., 2021; Vrijen et al., 2021)
- Bullying perpetration *was associated positively* with all types of substance use (drugs, alcohol, tobacco, and general).
- Interestingly, the result for combined bullying-victimization were more mixed, with generally weaker effects.
- Adolescents (and particularly children) who bully their peers have a higher risk of substance use later in life than their non-bullying peers (Vrijen et al., 2021)



Mutual Influences on Bullying and Substance Use

- Data from the Population Assessment of Tobacco and Health cohort study, a nationally representative sample of youth, was used to investigate bullying perpetration and substance use at three points in time over 3 years.
- Among 12-17 year old adolescents, episodic and frequent bullying predicted substance use at follow-up.
- Episodic and frequent substance use predicted bullying perpetration at follow-up.
- The associations between bullying and substance use appears to be bidirectional.
- Episodic bullying perpetrators displayed intermediate levels of risk, indicating a dose-response association between bullying perpetration and substance use.

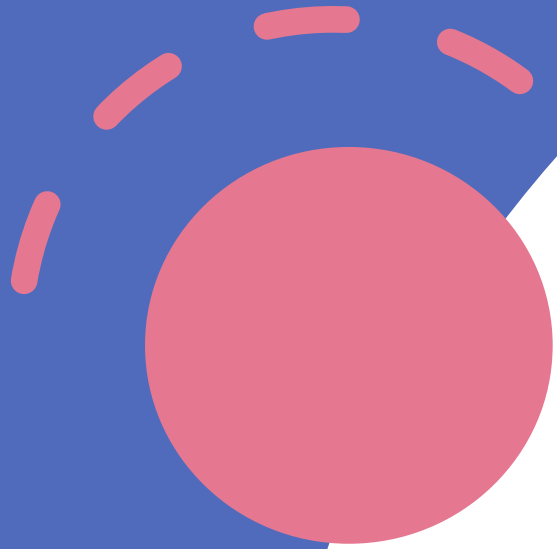


Suicidal Risk, Bullying, and Substance Use

- While pathways between being bullied and engaging in suicidal behavior have been hypothesized, the use of illicit substances in such a relationship have not been well understood.
- In one study, bullying victimization at age 15 predicted increases in age 17 depressive symptoms and suicidal ideation.
- Depressive symptoms at age 15 and tobacco and cannabis use at age 17 were associated with within-person increases in bullying victimization at ages 17 and 20, respectively.
- Cannabis use and suicidal ideation were positively and reciprocally related over time (Zhu et al., 2022).

Potential Protective Factors

- Students of lower religiosity levels who had been bullied were more likely to use substances than those who self-rated as high religiosity (among Beirut high school students; Affi et al., 2020)
- Parental nurturance and support
- Parental monitoring of behavior
- Culturally congruent treatment strategies (Pontes et al., 2020)



References

Please see attached references



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Substance Use and Bullying

The Intersections



Intersections

Researchers agree that students who participate in the cycle of bullying (victim, bullies, and bystanders) experience a higher risk for substance use.

These associations are not considered causal, through the study of this co-occurrence of bullying and substance use, we have learned more about the factors related to substance use, ***which can be considered in preventive interventions.***



Youth Involvement

How the research is presented



Bullies



Victims



Bystanders

Gaete, J., Tornero, B., Valenzuela, D., Rojas-Barahona, C. A., Salmivalli, C., Valenzuela, E., & Araya, R. (2017). Substance use among adolescents involved in bullying: a cross-sectional multilevel study. *Frontiers in psychology*, 8, 1056.


The Intersections

- ✓ Studies have found an association between bullying behaviors and substance use among adolescents
- ✓ Some evidence that bullies and victims of bullying have a higher risk for drug use.
- ✓ Bullies and bully-victims have a high risk for cigarette, alcohol, and cannabis use than bystanders.



Gaete, J., Tornero, B., Valenzuela, D., Rojas-Barahona, C. A., Salmivalli, C., Valenzuela, E., & Araya, R. (2017). Substance use among adolescents involved in bullying: a cross-sectional multilevel study. *Frontiers in psychology*, 8, 1056.

Niemelä, S., Brunstein-Klomek, A., Sillanmäki, L., Helenius, H., Piha, J., Kumpulainen, K., et al. (2011). Childhood bullying behaviors at age eight and substance use at age 18 among males. A nationwide prospective study. *Addict. Behav.* 36, 256–260. doi: 10.1016/j.addbeh.2010.10.012



Research has shown that bullies may be involved in drug use as part of a more general involvement in antisocial behavior, or as a byproduct of their engagement with groups of peers presenting deviant behaviors.



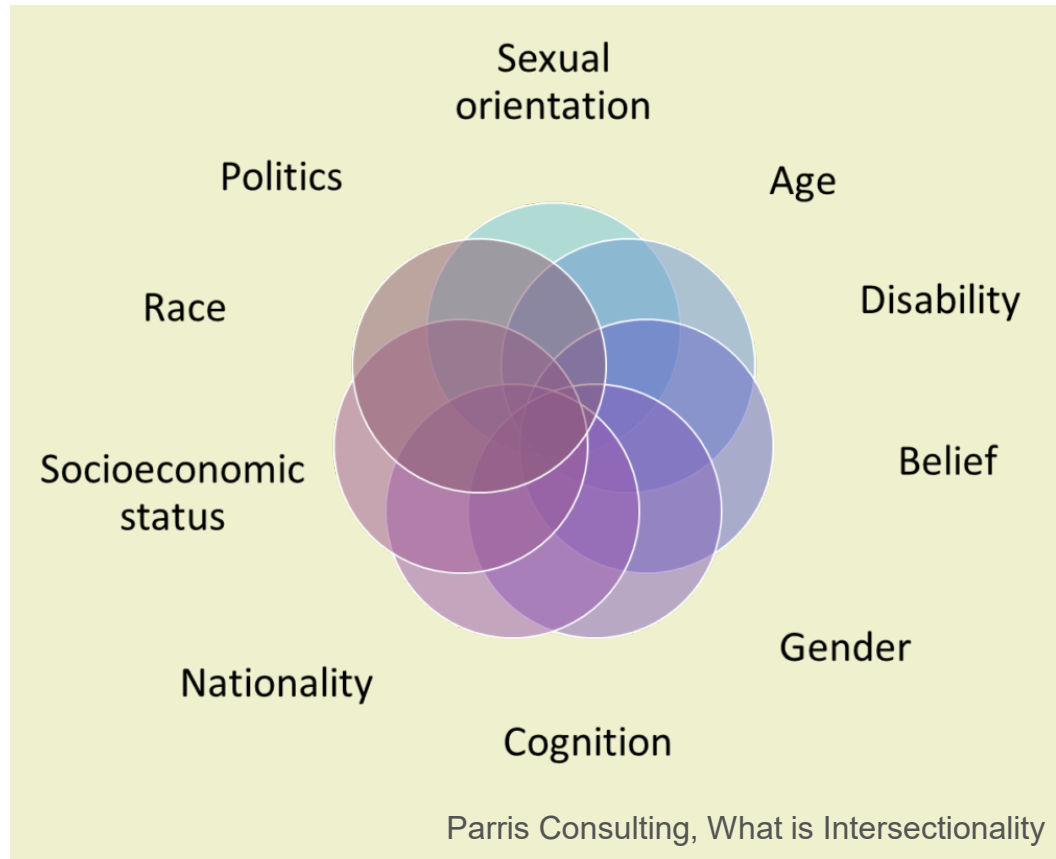
Discrimination

- ✓ Discrimination is commonly experienced among adolescents.
- ✓ Attributes of discrimination and bullying co-occur among adolescents
- ✓ One study looked at four attributes : race/ ethnicity, immigration status, perceived sexual orientation and weight (Boston Youth Survey)
- ✓ Identity or Bias-based bullying



Garnett, B. R., Masyn, K. E., Austin, S. B., Miller, M., Williams, D. R., & Viswanath, K. (2014). The intersectionality of discrimination attributes and bullying among youth: An applied latent class analysis. *Journal of youth and adolescence*, 43, 1225-1239.

Intersectionality: Substance Misuse and Bullying



- ✓ People are often disadvantaged by multiple sources of oppression
- ✓ When intersected they compound and multiply
- ✓ A model for understanding substance misuse, discrimination, and bullying with implications for prevention



Mereish, E. H., & Bradford, J. B. (2014). Intersecting identities and substance use problems: Sexual orientation, gender, race, and lifetime substance use problems. *Journal of studies on alcohol and drugs*, 75(1), 179-188.



Garnett, B. R., Masyn, K. E., Austin, S. B., Miller, M., Williams, D. R., & Viswanath, K. (2014). The intersectionality of discrimination attributes and bullying among youth: An applied latent class analysis. *Journal of youth and adolescence*, 43, 1225-1239.

Risk Factors for High-risk Substance Use

- Family history of substance use
- Favorable parental attitudes towards the behavior
- Poor parental monitoring
- Parental substance use
- Family rejection of sexual orientation or gender identity
- Association with delinquent or using peers
- Lack of school connectedness
- Low academic achievement
- Childhood sexual abuse
- Mental health issues



Source: Center for Disease Control (CDC), *High-Risk Substance Use Among Youth*, Retrieved on April 17, 2023, from <https://www.cdc.gov/healthyyouth/substance-use/index.htm>

Risk Factors for Being Bullied


- Seen as different from peers
- Seen as weak
- Depressed, anxious, or low self esteem
- Few friends or less popular
- Do not socialize with others
- Intellectual or developmental disabilities



Source: U.S. Department of Health and Human Services. (n.d.). *Who is at risk? Risk factors*. Retrieved April 17, 2023, from <http://www.stopbullying.gov/at-risk/factors/index.html>

Factors that increase the likelihood of being a victim or perpetrator

- Individual
- Relationship
- Community
- Societal

A young girl with long brown hair and a young boy with glasses are smiling together. The girl is on the left, wearing a light blue top. The boy is on the right, wearing a white and blue striped shirt. They are in front of a wooden chair with vertical slats.

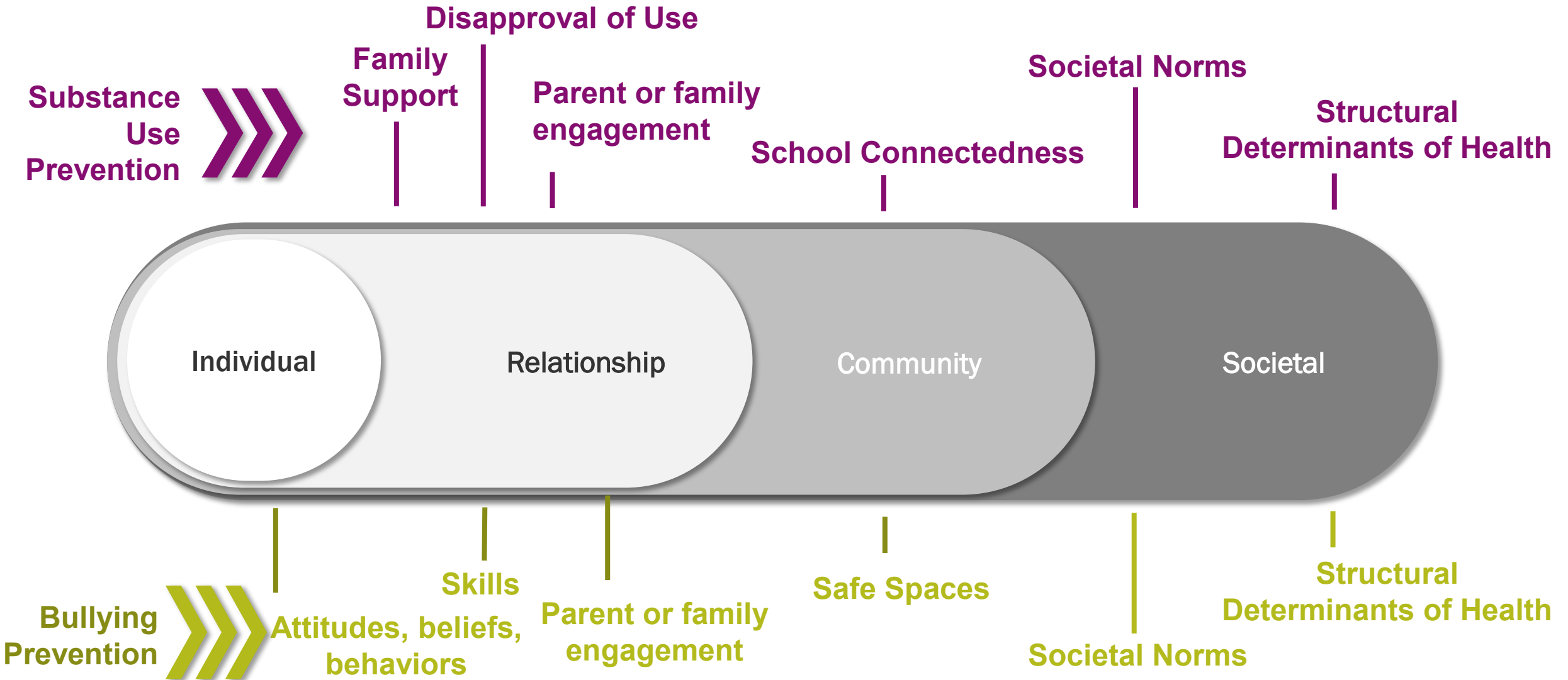
Age, education, income, **substance use**, or history of abuse

Social circles, **peers**, partners, **family members influence**

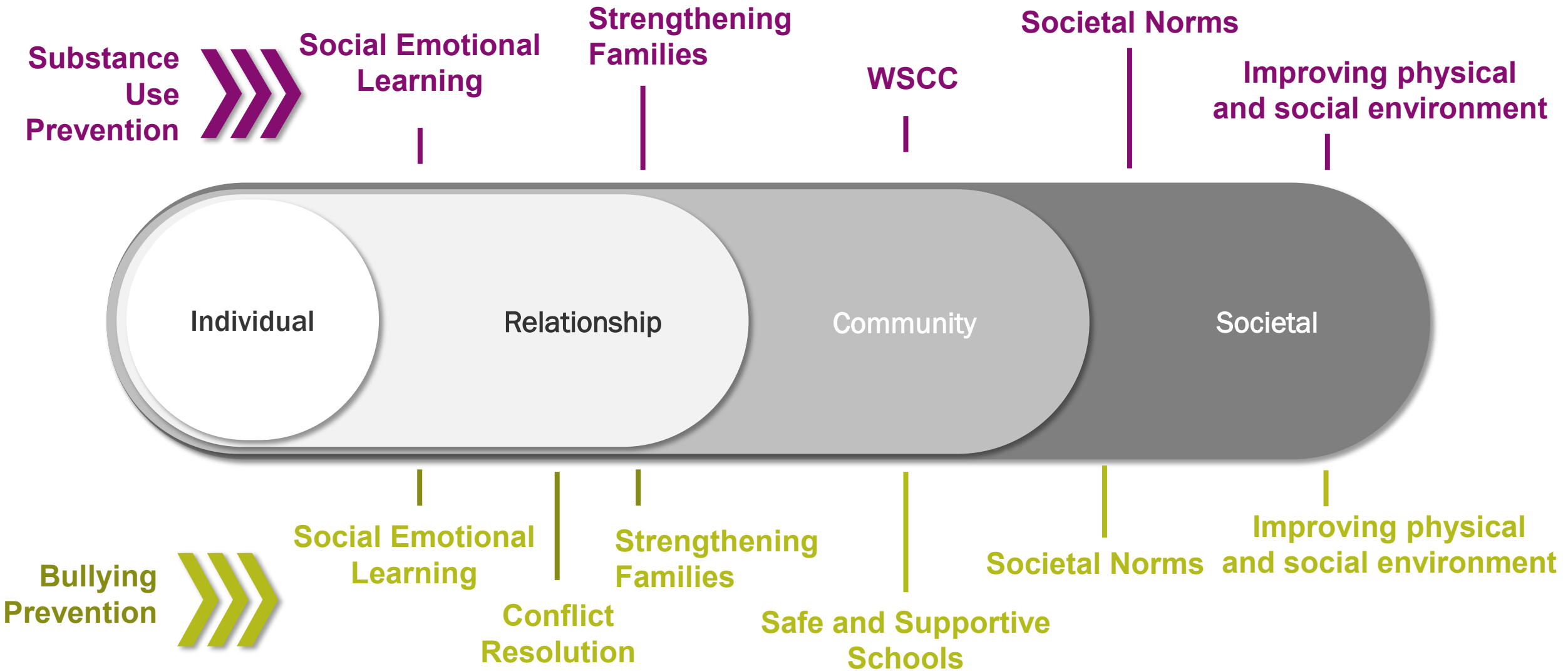
Schools, workplaces, neighborhoods, in which social relationships occur

Social and **cultural norms**, social and economic inequities

The Social-Ecological Model: Protective Factors



The Social-Ecological Model: Strategies



Questions?



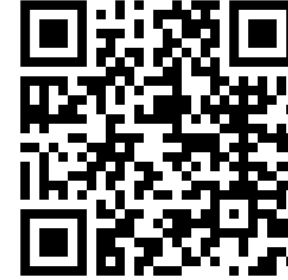
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www.ChildrensSafetyNetwork.org