Managing High Risk Behavior in Teens

Jess P. Shatkin, MD, MPH
Vice Chair for Education
NYU Department of Child & Adolescent Psychiatry
Professor of Child & Adolescent Psychiatry and Pediatrics
NYU School of Medicine
Disclosures

Doctor Radio
SiriusXM, Channel 110
Overview

1) What risks do adolescents take?
2) How do adolescents assess risk?
3) Why do adolescents engage in risky behavior?
4) How do adolescents make decisions involving risk?
5) Which practices will help keep our adolescents safe from risk?
Part 1: What risks do adolescents take?
What risks did you take as an adolescent?

Almost all deaths & disability among adolescents are due to:

- Emotion
- Cognition
- Behavior
Risks

• >80% of high school students don’t wear bicycle helmets
  • One-third don’t wear motorcycle helmets
• In the past 30 days, 20% of high school students drove with someone who was drinking alcohol
  • 40% texted or emailed while driving
• More than 35% of sophomores have had sex, along with 50% of juniors and nearly 60% of seniors
  • 43% didn’t use a condom last time they had sex, 14% didn’t use any birth control (higher among minorities)
  • 1 in 4 teen girls gets an STI, 3 in 10 become pregnant (along with 51% of Latina teens)
  • 1 in 10 teen girls is physically forced to have intercourse
• 1 in 4 seniors binge drank in the last 30 days, along with >1 in 5 juniors and 1 in 6 sophomores
  • Over one-quarter of juniors and seniors smoked MJ in the past 30 days
### Leading Causes Of Death In 15 To 24 Year Olds

**United States, 2013**

<table>
<thead>
<tr>
<th>CAUSE</th>
<th>% OF DEATHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidents</td>
<td>47.7</td>
</tr>
<tr>
<td>Suicide</td>
<td>20.0</td>
</tr>
<tr>
<td>Homicide</td>
<td>17.7</td>
</tr>
<tr>
<td>Malignant Neoplasms</td>
<td>6.1</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>3.8</td>
</tr>
<tr>
<td>Congenital Anomalies</td>
<td>1.4</td>
</tr>
<tr>
<td>Influenza &amp; Pneumonia</td>
<td>0.8</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>0.7</td>
</tr>
<tr>
<td>Complicated Pregnancy</td>
<td>0.7</td>
</tr>
<tr>
<td>Chronic Low Respiratory Disease</td>
<td>0.6</td>
</tr>
</tbody>
</table>

14.1% of deaths are from the top 5 causes.
Adolescent Death & Disability Worldwide (ages 15 – 19-years-old)

**Death**
1. Road Injury
2. HIV
3. Suicide
4. Lower Respiratory Infections
5. Interpersonal Violence

**Disability**
1. Unipolar Depressive Disorders
2. Iron Deficiency Anemia
3. Alcohol Use Disorders
4. Back & Neck Pain
5. Anxiety Disorders

WHO, 2012
Mental Health

• >20% of children 3 – 17 y/o meet DSM criteria (Surgeon General, 1999)
  ❖ 49.5% of 13-18 y/o met DSM criteria, 27.6% for a “severe disorder,” 22.2% exclusive of SUDS (Merikangas et al, 2010)
• 50% of all mental illness begins by age 14 years and 75% by age 24 (Kessler et al, 2005)
• ACE’s affect >50% of children and adolescents (Felitti et al, 1998)
• 30% of high school students felt sad or hopeless for two or more weeks in the past 12 months
  • 18% seriously considered attempting suicide (2:1, female to male)
  • Almost 9% attempted suicide (2:1, female to male)
Who Commits Crimes?

1. When the number of youth increases, so does the amount of crime
2. Half of all serious crimes are committed by those 10 – 17
3. Most serious crimes are committed by those under 30
4. Youth criminal behavior almost always happens in groups

**Juvenile violent crime rate**

Number of violent crime arrests of juveniles per 100,000 U.S. residents, 1970-2003

Note: Violent crimes are offenses of murder, rape, robbery, and aggravated assault. Source: Criminal Offenders Statistics, December 2004, Bureau of Justice Statistics
Part 2: How do adolescents assess risk?
Let’s start with why adolescents take risks –

What are your thoughts?
Adolescents Always Overestimate Risk

• Low probability events
  ✓ Earthquakes and Hurricanes
• Higher Probability Events
  ✓ Accidents and Pregnancy
• Teens believe that the risk of contracting a sexually transmitted infection to be between six and 60,000 times greater than the actual risk (Millstein & Halpern-Felsher, 2002)
• Adolescents believe that the chance they will die this year to be >200x the actual risk (Fischhoff et al, 2009)
Most adolescent risk reduction programs focus on improving adolescents’ accuracy of risk perception to try and overcome their belief of invincibility to transform intuitive/biased “adolescent” decision-making into analytic unbiased “adult-like” decision-making. This approach is misguided and doesn’t work.
ZERO TOLERANCE
FOR ALCOHOL, DRUGS, SMOKING
AND WEAPONS ON SCHOOL PROPERTY

ACADEMY AWARD WINNER
BEST DOCUMENTARY FEATURE

The Legendary Documentary Film By Arnold Shapiro

SCARED STRAIGHT!

“Powerful and Gripping.”

DRIVING SCHOOL

WHAT’S WORSE?
OR
SEX HAS CONSEQUENCES

healthy food
physical exercise
no smoking
no drinking

CHLAMYDIA
Grindr
“all the women are strong, all the men are good looking, and all the children are above average”

• Self-Assessment Bias
  • Marriage, death, professorship

• Optimistic Bias
  • Due to pluralistic ignorance
  • We think we do things to protect ourselves that others don’t think to do

• Adolescents commonly have optimistic bias
• But adults have just as much (or more!)
Part 3: Why do adolescents really engage in risky behavior?
Why Do Adolescents *Really* Take Risks?

+ Brain maturation is not yet complete
+ Driven by reward
+ Hormones & early puberty
+ Peer effects
+ Behavioral contributions

= a HUGE Evolutionary Advantage for human survival (but not an advantage for individuals)

▶︎ In other words, the adolescent brain isn’t an accident – rather, it’s a perfect evolutionary design
The Drug Danger Zone: Most Illicit Drug Use Starts in the Teenage Years

Percentage of Past-Year Initiates among Those Who Have Never Used

- 14-15: 8.0%
- 16-17: 11.2%
- 18-20: 10.4%
- 21-25: 4.5%
- 26 or Older: 0.3%

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2011 and 2012.
Evolutionary Advantage

• The Adolescent Paradox

• Youth is not wasted on the young
Part 4: How do adolescents make decisions involving risk?
Who Considers More Data in Decision-Processing?

• Vignettes:

  ? John and Nancy are each 47 years old. They met a few years ago at a work conference. They are very attracted to one another and are now having a drink together in the bar after the day’s meetings. Both are married and have children.

  ? Michael and Susan are each 17 years old and attend different NYC high schools. They meet at a house party and are very attracted to one another. They’re enjoying the keg party. They are each in a current relationship with someone else.

• Which couple is more likely to hook up?

• Which couple evaluates more pieces of information in making a decision about whether or not to hook up?
Reaction time in milliseconds for adolescents and adults to questions such as, “Is it a good idea to eat a salad?” “Is it a good idea to take a walk?” “Is it a good idea to set your hair on fire?”, and “Is it a good idea to swim with sharks?” (Baird & Fugelsang, 2004).
Advanced Decision-Makers

• Advanced decision-makers home in on essential patterns and gists, ignoring details and irrelevant cues

✓ Physicians with experience make better decisions and with fewer pieces of information

✓ Resident and early career physicians weigh more information, take more time, and make worse decisions

✓ Triage nurses, fire fighters, cardiologists, pilots, drivers, etc.
In the beginner's mind there are many possibilities; in the expert's mind there are few.

--Shunryu Suzuki Roshi
Part 5: Which practices will keep our adolescents safe from risk?
Guiding Principles for Managing Risk

• Bombarding adolescents with risk information won’t help them make better decisions
  ❖ They know more, but show little behavior change

• Focus on practice and emotional salience
  ❖ Health classes may have even encouraged worse decision-making by teaching kids to be more deliberative (e.g., weighing risks & benefits)

• Adolescents are not fully mature
  ❖ So exposure to risks should be limited as much as possible or taught via apprenticeship
Adolescent Risk Reduction Efforts Should…

• Encourage the development of gist-based, automatic and non-deliberative decision-making
• Shelter young children and early adolescents from risky experiences
• Make great efforts to modify the environment
• Provide apprenticeships
What We Can Do (1)

• Authoritative “just right” Parenting
• Behavioral Parent Training
• Being There (aka Close Monitoring)
• Talk to your kids about risk & drugs & sex & condoms
• Focus interventions on kids who are at high risk of substance abuse
• Reframe reward
• Provide “safe” risks
• Highlight the short term benefits of not taking risks (e.g., you don’t have to lie to your parents)
• Let’s Talk Screens
Screen Time

• 75% of youth have at least one electronic device in their bedroom
  • 45% have a television, 1/3 keep it on all night
• Median number of electronic devices in kids’ rooms
  • 1 for children 6 – 11 y/o; 2 for 12 – 14 y/o; & 3 for those over 15 y/o
• Screen use impacts the brain & increased use is associated with greater:
  • Decreases in gray matter; reduction in frontal lobe cortical thickness; reduction in attention span; poor task performance involving memory & cognition; enhanced reward sensitivity & decreased sensitivity to loss; neurological signs of cravings; & higher rates of obesity
• When a cell phone is present, people report:
  • Lower relationship quality and less closeness, less trust in their conversational partner, less empathy from their conversational partner

  - National Sleep Foundation, 2014; Shatkin, 2017; Faires et al, 2014; Przybyiski & Weinstein, 2012
Why God Created the Fruit Bowl

- Postpone screens as long as possible (Wait Until 8\textsuperscript{th})
  - Consider Life 360 or Find Friends
- Postpone social media until at least 13 y/o
  - “Friend” your kids
- You own the phone!
- First work, then screens
  - Screens are a reward, not a privilege
- Limitations (e.g., Friday afternoon through Sunday evening)
- Keep all screens (computers, TVs, etc.) in shared spaces
- Always supervise children on screens
  - Doors open if screens in bedrooms
- Stop screens at least an hour before bedtime
- Use blue light blocking devices (e.g., f.lux, night shift, etc.)
## Screen Time

**Jess Shatkin's iPhone**

**SCREEN TIME**

Today at 12:36 PM

### Last 7 Days

**MOST USED**

<table>
<thead>
<tr>
<th>App</th>
<th>Average Time (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mail</td>
<td>2h 34m</td>
</tr>
<tr>
<td>Messages</td>
<td>1h 54m</td>
</tr>
<tr>
<td>Facebook</td>
<td>1h 4m</td>
</tr>
<tr>
<td>Safari</td>
<td>45m</td>
</tr>
<tr>
<td>Amazon</td>
<td>36m</td>
</tr>
<tr>
<td>Fitbit</td>
<td>35m</td>
</tr>
<tr>
<td>Wordscapes</td>
<td>32m</td>
</tr>
</tbody>
</table>

**Weekly Total**

14h 34m

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**First Used After Pickup**

- **Mail**
- **Messages**
- **Calendar**
- **Fitbit**

**Most Pickups**

- Friday: 101
- Total: 444

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**Weekly Total**

14h 34m
### Screen Time

**Currently**

- **Today**
- **Last 7 Days**

### Julian Shatkin's iPhone

**Screen Time**

- **Total Time:** 2h 54m per day
- **Change from Last Week:** 20%
- **Weekly Total:** 20h 18m

#### Most Used Apps

<table>
<thead>
<tr>
<th>App</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safari</td>
<td>4h 11m</td>
</tr>
<tr>
<td>Instagram</td>
<td>3h 46m</td>
</tr>
<tr>
<td>Messages</td>
<td>2h 44m</td>
</tr>
<tr>
<td>Snapchat</td>
<td>1h 12m</td>
</tr>
<tr>
<td>BitLife</td>
<td>1h 4m</td>
</tr>
<tr>
<td>Mail</td>
<td>1h 51m</td>
</tr>
<tr>
<td>Ball Blast</td>
<td>34m</td>
</tr>
<tr>
<td>Napster</td>
<td>29m</td>
</tr>
<tr>
<td>Google Maps</td>
<td>29m</td>
</tr>
<tr>
<td>YouTube: Watch, Listen, Stream</td>
<td>13m</td>
</tr>
<tr>
<td>Phone</td>
<td>9m</td>
</tr>
<tr>
<td>Photos</td>
<td>9m</td>
</tr>
</tbody>
</table>

**Show More**

- **Total Pickups:** 973
- **Total Check-ins:** 762

**Most Pickups**

- Saturday: 261
- **First Used After Pickups**
  - **Messages:** 190
  - **Snapchat:** 98
  - **Napster:** 63
  - **Mail:** 59
What We Can Do (2)

• Help our adolescents to understand that corporations are often manipulating them to engage in risky behaviors (by using their products)
  ❖ Teach Media Literacy in schools & at home
  ❖ Teens especially are interested in issues of justice (fighting back against "the man")

• Instead, we can use positive images and models of healthy behavior and negative images of unhealthy ones
  ❖ In media, films, fiction
Fools, not cools
It's Game Day.
Tobacco use is not an equal opportunity killer. Smoking disproportionately affects those most in need such as the poor, the homeless, racial minorities, LGBTQ persons and those suffering from mental illness and substance use disorders.

There are up to 10x more tobacco ads in black neighborhoods than in other neighborhoods.

Debernard AL, Caughy MK, Reed VN, Conway DK. Storefront cigarette advertising offered by community demographic profile. Am J Health Promot. 2018;32(4):226-231. (J-2; N/R/ES)


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Individuals with mental illness account for 46% of cigarettes sold in the United States.

The use of e-cigarettes is causing an overall increase in the use of tobacco products among kids.
Figure 15. The pose and hairstyle of this 2015 Vaporized campaign advertisement are reminiscent of popular singer Ariana Grande. This is an example of the style/identity theme.
15- to 17-year-olds are 16x more likely to use a Juul compared to those ages 25-34.

truthinitiative.org
SKYY INFUSIONS
ALL NATURAL
CHERRY
GO NATURAL
SKYY Infusions Cherry voted best tasting by the Beverage Testing Institute®
SMART MAY HAVE THE BRAINS, BUT STUPID HAS THE BALLS.

Shop online at Diesel.com
What We Can Do (3)

• Acknowledge that risk is low, but consequence is dire (e.g., “once is all it takes” NOT “don’t overdo it”)

• Use analogies to steer adolescents away from deliberative calculation toward more categorical thinking about risk
  ❖ “Would you play Russian Roulette for one million dollars?”
What We Can Do (4)

• Develop emotional and personal cues
  ❖ “What would happen if you got pregnant?” “What happens next?...and then…and then?”

• Practice recognizing environmental signs of danger (and self-binding)
  ❖ Red Alerts – “home alone after school with BF”

• Teach self-efficacy
  ❖ Practice & rehearse refusal skills (e.g., “my parents drug test me”…”maybe next time”) – role play, make it natural
What We Can Do (5)

• Role model
• Use frequent reminders
• Plan decision pathways (in moments of cold cognition)
  ❖ Discourage risk/benefit in the moment
• Teach emotional self-regulation
• Social Norms Marketing
• Use ratios, not percent
  ❖ 1 in 20, not 5%
And there’s still much more we can do in schools…

- Limit phones in schools
- The Triumvirate of Good Health
- School start time & after school programming
- Sex education/make condoms available
- Targeted drug abuse prevention
- School based mental health clinics
- Mentorship
- Teaching resilience via neuroscience
  - Emotion identification, communication skills, CBT skills, sleep, risk management
And in society at large…

- Poverty
- Mentorship
- Policies & research dollars
- Driving and Alcohol & Drug Laws
Discussion, Q&A

Jess P. Shatkin, MD, MPH
Vice Chair for Education
Director of Undergraduate Studies
Child & Adolescent Mental Health Studies (CAMS)
NYU College of Arts & Science
Professor of Child & Adolescent Psychiatry and Pediatrics

T 646-754-4900
jess.shatkin@nyumc.org
| www.drjesspshatkin.com
| www.nyulangone.org/csc