# Prevention Work and Intervening Support for Students with Addiction Problems - Smoking and Alcoholism

「援"瘾"學生—預防與介入煙酒成瘾」

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## 「援"瘾"學生—預防與介入煙酒成瘾」

- 1. What is addiction?
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- 4. Understanding the etiology
- 5. Understanding the defensiveness
- 6. How can we prevent youth from smoking and drinking problems
- 7. Communicating with our youths

## 1. What is Addiction?

- Substance (物質)
- Behavioural (行為)

# Substance (物質)

- Narcotics Analgesics 麻醉劑
- Hallucinogens 迷幻劑
- Depressants 鎮抑劑
- Stimulants 興奮劑
- Tranquillizers 鎮静劑
- Others, e.g Ketamine 氯胺酮, Codeine 咳藥
- Alcohol 酒精
- Tobacco 煙草
- Inhalants 吸入劑
- Caffeine 咖啡因

## Behavioural (行為)

- Pathological Gambling 病態賭博
- Compulsive Buying 購物成癮
- Internet Addiction 上網成癮
- Sexual Addiction 性沉溺
- Eating Disorder 飲食失調
- Compulsive Exercise 強迫性運動
- Compulsive Shop Lifting 強迫性偷竊

## 1. What is Addiction

美國哈佛大學醫學院 Howard. J. Shaffer(1999)教授提出成癮指標的 3 Cs,幫助我們了解成癮行為的特徵:

## Craving(強 烈 欲 望)

強烈參與成癮行為的欲望,不斷計劃如何進行成癮行為。

## Loss of Control (失 去 控 制 )

失去對成癮行為的自控能力。

## Continued involvement (不 顧 後 果 )

即使因大量進行成癮行為導致嚴重不良的後果,但仍繼續有關的行爲。

- Worldwide, 3.3 million deaths every year result from harmful use of alcohol, this represent 5.9 % of all deaths.
- In the age group 20 39 years approximately 25 % of the total deaths are alcoholattributable.
- Alcohol is the drug of choice among youth. Each year, approximately 5,000 young people under the age of 21 die in US as a result of underage drinking; this includes about 1,900 deaths from motor vehicle crashes, 1,600 as a result of homicides, 300 from suicide, as well as hundreds from other injuries such as falls, burns, and drownings.

Sources: WHO (2015); National Institute on Alcohol Abuse and Alcoholism (2006)

- 酒精,與煙草一樣,早被世衞國際癌症研究機構(IARC)列為第一級致癌物質,屬於最高風險類別。「酒精飲品中的乙醇」和「與飲酒有關的乙醛」(乙醛是乙醇在人體內的主要代謝物)被世界衞生組織屬下的國際癌症研究機構列為第一類致癌物質,與煙草、電離輻射和石綿同一類別
- 研究顯示,酒精致癌的原因有以下的可能:
  - ▶ 酒精中的乙醇被轉換成一種有毒物質名為乙醛。它可以通過破壞細胞的 DNA,從而停止我們細胞的修復能力,形成癌症。
  - 增加雌激素的水平,從而增加乳癌的機會。
  - 酒精更容易令口腔和咽喉組織吸收煙草中的致癌物質。
  - ▶ 減低身體的葉酸水平,影響細胞產生新的 DNA。

每日飲用不同份量的酒所增加相關癌症的早死風險

		每日 <b>1</b> 個 酒精單位	每日 <b>2</b> 個 酒精單位	每日 3-4 個 酒精單位
1	大腸癌	+3%	+5%	+9%
2	直腸癌	+5%	+10%	+18%
3	肝癌	+10%	+21%	+38%
4	食道癌	+20%	+43%	+87%
5	喉癌	+21%	+47%	+95%
6	口腔癌和咽癌	+42%	+96%	+197%
7	女性乳癌	+13%	+23%	+52%

資料來源:Communicating Alcohol-Related Health Risks: Canada's Low Risk Alcohol Drinking Guidelines

### Deaths and injuries

- ➤ Based on data from 2006–2010, the Centers for Disease Control and Prevention (CDC) estimates that, on average, alcohol is a factor in the deaths of 4,358 young people under age 21 each year.4 This includes:
- 1,580 deaths from motor vehicle crashes
- 1,269 from homicides
- 245 from alcohol poisoning, falls, burns, and drowning
- 492 from suicides
- In 2011 alone, about 188,000 people under age 21 visited an emergency room for alcohol-related injuries.5

#### Lead to Addiction

• Research shows that people who start drinking before the age of 15 are 4 times more likely to meet the criteria for alcohol dependence at some point in their lives.

### <u>Interferes with brain development</u>

• Research shows that young people's brains keep developing well into their 20s. Alcohol can alter this development, potentially affecting both brain structure and function. This may cause cognitive or learning impairment and/or make the brain more prone to alcohol dependence. This is especially a risk when people start drinking young and drink heavily.

- The human brain consists of white cells and gray cells. The gray cells are responsible for thinking and feeling and decisions--they correspond to the Central Processing Unit (CPU) of your computer. The white cells are like the cables of your computer which connect the keyboard and the monitor to the CPU.
- In 1993 Jensen and Pakkenberg found was that the number of gray cells was the same in both the heavy drinkers and the nondrinkers. However, there were fewer white brain cells in the brains of the drinkers which implies that alcohol kills white brain cells.
- In 2009 George Fein discovered that there was one part of the brain in the parietal lobe--which is associated with spatial processing--where alcohol kills gray cells.
- Brain damage can be caused by thiamine deficiency or liver failure which happen to alcoholics.
- Studies by Pfefferbaum (1995, 1998) show that with long periods of abstinence or moderate drinking the brains of alcoholic dependent subjects return to nearly the same size as their nondrinking counterparts.

#### 2 Oct is International NO Alcohol Day 國際無酒精日

• 香港理工大學護理學院在 2014 年訪問了 840 名中三學生,了解他們的吸煙、飲酒等習慣,並於今年發表文獻。研究發現三成八的學生有飲酒經驗,平均最早接觸酒精飲品的年齡是 10.9歲,最年輕的更只有 8.3歲。研究發現朋輩影響是青少年飲酒的重要因素,身邊有朋友飲酒的人,其飲酒的機會是沒有朋友飲酒的人的 33 倍。根據衞生署在 2014 年的統計,48.7%受訪者一個星期喝酒少於一次,但年齡介乎 18 至 24歲的年輕人暴飲(即一次過飲用最少五杯或五罐酒精飲品)的比率,由一○年的7.4% 增至一二年的 9.8%。

資料來源: 星島日報 2016 年 10 月 2 日

於 2017 年 3 月至 5 月共訪問 1603 位澳門中一至中三學生。870 人 (54.3%) 為男性,733 人 (45.7%) 為女性,年齡介乎 11 至 21 歲,平均年齡 14.53 歲 (SD = 14.53)。

46%的受訪者表示曾經飲酒,有18.8%(302人)表示過去30日曾經飲酒,而第一次飲酒的平均年齡為10.71歲。

## **Common Myths**

- 酒精的致癌作用與酒精飲品的種類無關;換言之,不論是飲啤酒、葡萄酒或 烈酒,都可致癌。
- 酒精是致癌物,不應作為保健之用。
- 對酒精的致癌風險來說,並沒有所謂安全的飲用水平。恆常飲酒,即使只是 很少的分量,都會增加死於癌症的風險。若無飲酒習慣,就不要開始飲酒。
- 若選擇飲酒,在理解風險後應節制以減低酒害:
- 男士一天不應飲超過2個酒精單位;
- 女士一天不應飲超過1個酒精單位。

# 2. Facts and figures – Smoking

### Key facts by WHO in May 2017

- Tobacco kills more than 7 million people each year. More than 6 million of those deaths are the result of direct tobacco use while around 890,000 are the result of non-smokers being exposed to second-hand smoke.
- In 2004, children accounted for 28% of the deaths attributable to second-hand smoke.
- In adults, second-hand smoke causes serious cardiovascular and respiratory diseases, including coronary heart disease and lung cancer.
- In infants, it causes sudden death. In pregnant women, it causes low birth weight.

Source: WHO (2017);

# 2. Facts and figures – Smoking

• Teens who smoke are three times more likely than nonsmokers to use alcohol, eight times more likely to use marijuana, and 22 times more likely to use cocaine. Smoking is associated with a host of other risky behaviors, such as fighting and engaging in unprotected sex.

Source: WHO,2017

• In 2014, 73% of high school students and 56% of middle school students in US who used tobacco products in the past 30 days reported using a flavored tobacco product during that time.

Source: Centers for Disease Control and Prevention, 2016

# 2. Facts and figures – Smoking

- In Hong Kong, according to the Thematic Household Survey Report No. 59 released by Census and Statistics Department on 4 February 2016, the daily cigarette smoking prevalence of Hong Kong (aged 15 or above) was dropped to 10.5% in 2015 which equivalent to around 641,300 daily cigarette smokers. It is the lowest rate recorded since 1982. The smoking prevalence of male and female daily cigarette smokers were 18.6% and 3.2% respectively.
- Prevalence of current smoking and rate of ever e-cigarette use among secondary school students were 2.7% and 9.0% respectively, and those among primary school students were 0.2% and 2.6% respectively.

Source: Hong Kong Council on Smoking and Health. 2016

# 3. Trends of youth smoking and drinking

- A. Trends of youth smoking
- > Electronic cigarettes
- > Smokeless tobacco
- > Hookah
- B. Trends of youth drinking
- "binge drinking?"

電子煙

香港的使用情況 - 主攻年輕人市場

2014年時,吸煙與健康委員會委託香香港大學學公共衛生學院進行研究,由 2013年5月至9月期間訪問了2,400人,15至29歲者有4.4%曾使用電子煙, 調查顯示年紀愈輕使用率愈高。

住戶統計調查第 62 號報告書(2014) 指出中學生有 2.7% 表示有曾經吸煙, 9% 表示有吸食電子煙,在小學生當中 0.2%表示有曾經吸煙, 2.6% 表示有曾經吸食電子煙,吸食電子煙的比例均比吸煙的比例高。

據世界衛生組織去年七月的綜合報告顯示,不同地方的監管措施或法例差異甚大。例如英國視電子煙為消費品,故監管較寬鬆,近年升幅更為顯著,於2012年持續使用的煙民已接近21%,逾58%的吸煙者每周至少使用一次;亞洲地區如馬來西亞現時亦有接近15%的煙民在使用電子煙,整體而言,吸煙人士的使用率有上升趨勢。

什麼是電子煙 Electronic cigarettes?

電子煙是電子尼古丁傳送系統或電子非尼古丁傳送系統,通過加熱一種溶液傳送氣霧供使用者吸用。

電子煙的主要成分,除了尼古丁(如有),包括丙二醇,可能還有甘油和添味劑。電子煙所用的液體及其釋放物還含有化學物質,些化學物質被視為有毒物質。一些電子煙的外形與煙草製品(如捲煙、雪茄、煙斗或水煙)相似,也有些是日

常用品形狀,如鋼筆、USB 記憶棒等。

電子煙的全球銷量由 2008 年的約 2,000 萬美元急升逾 120 倍至 2015 年的近 35 億美元,情況令人關注。

現時在全球銷售的電子煙約有 8,000 多種不同口味,針對好奇及追求新鮮的年青人市場。

### Smokeless Tobacco 無菸煙草

In US, 2.2% middle school students reported current use of smokeless tobacco. Nearly 6 of every 100 high school students (5.8%) reported current use of smokeless tobacco in 2016.

Source: Centers for Disease Control and Prevention, 2016

Smokeless Tobacco come in many forms, including:

- Chewing tobacco, which is placed between the cheek and gums.
- Snuff, which can be sniffed if dried.
- Dissolvable products, including lozenges, orbs, sticks, and strips.

#### Hookahs 水煙

In US, from 2011 to 2016, the use of hookahs increased among middle and high school students. 2.0% school students reported in 2016 that they had used hookah in the past 30 days—an increase from 1.0% in 2011. 4.8% high school students reported in 2016 that they had used hookah in the past 30 days—an increase from 4.1% in 2011.

水煙是煙草製成品的一種,源自中東地區,於清朝時傳入中國。現時中東及地中海東部一帶,如土耳其、埃及,沙地等國家,仍然十分盛行。在過去數十年來,一般人都以為吸食水煙比捲煙更為健康及煙癮較少。

世界衛生組織在 2006 年已發表有關水煙對健康的影響:

- 吸食一小時水煙相等於吸取 100 至 200 倍從一支捲煙所吸入的成份
- 雖然經過壺內的水來過濾,由水煙所產生的煙霧仍含有高濃度有害物質,包括一氧化碳,重金屬及致癌物質,所以水煙使用者與普通吸煙者一樣,更易患上口腔癌、肺癌、胃癌、食道癌症,降低肺功能,心臟疾病和降低生育能力。
- 水煙壺內用作助燃的物質,例如木屑及木炭等在燃燒煙草時,產生一系列有害物質,增加吸煙者的健康風險。
- 分享使用水煙壺大大增加感染傳染性疾病,例如肺結核及肝炎
- 水煙會釋出致癮性物質尼古丁,令人上瘾。

# 3. Trends of youth drinking

### What is "binge drinking?" 暴飲

- For adults, binge drinking means drinking so much within about 2 hours that blood alcohol concentration (BAC) levels reach 0.08 g/dL, the legal limit of intoxication.
- For women, this typically occurs after 4 drinks, and for men, about 5. But, according to recent research estimates, children may reach these BAC levels after fewer drinks.
- For boys:
  - ➤ Ages 9–13: About 3 drinks
  - Ages 14–15: About 4 drinks
  - Ages 16–17: About 5 drinks
- For girls:
  - ➤ Ages 9–17: About 3 drinks

# 3. Trends of youth drinking

### Situation in Hong Kong

- The Behavioural Risk Factor Survey April 2016 reported that among people aged 18 64, 17.2% were regular drinkers who drank at least once a week. Drinking was more prevalent among men, 25.0% of males drank at least once a week while only 10.4% of females did so.
- The survey also revealed that 7.0% of people had binge drinking (consumed five or more glasses or cans of alcoholic drinks in a row) at least once a month, of which people aged 25 34 (9.8%) had a higher rate of binge drinking followed by aged 18-24 (6.2%).

青少年比成年人 更容易患上 成癮問題及多重成癮問題

# 4. Understanding the etiology

- (i) Neurobiological models 神經生理學
- (ii) Psycho-Social Factors 心理及社會因素

## (i) Neurobiological models 神經生理學

## (a) Brain Reward Pathway 腦部獎賞系統

#### Old Brain (Midbrain) 中腦

- 生存需要:食物,性
- 創傷記憶
- 愛和被愛
- 去
- 多些

#### New Brain (Forebrain) 前腦

- 知識,理性思維,自我控制
- 停

### 無還原機制

## (b) Why Teens Are More Prone to Addiction

 核伏核 nucleus accumbens 是我們大腦中的獎賞系統,會激勵 我們繼續進行任何產生愉悅的行為,例如:食物、性行為等。 吸毒及所 有成癮行為會啟動及製造假象,令人繼續進行成癮行 為。而青少年 的大腦對成癮行為的反應比成年人更激烈,令他 們更渴望繼續參與 成癮行為。

Source: "Why Teens Are More Prone to Addiction, Mental Illness" By Jennifer Welsh, 2012

## (c) Dopamine Activity 多巴胺

- 1. 成癮行為釋放大量多巴胺
- 2. 身體自動減少多巴胺的接收器,令我們感到枯燥及苦悶
- 3. 增加成癮行為的程度減低不適感覺,令自己感到 快樂

## (ii) Psycho-social aspects 心理、社會環境因素

挑戰	需要	
感到力不從心、自尊感低、孤 單	被欣賞、被喜愛	
同儕壓力、欺凌	被聆聽、被安慰、被認同	
家庭壓力、衝突、家庭暴力	逃避難以忍受的感受、被聆聽、 被安慰	
缺乏生命目標、感到困惑和空 虚	需要成就感和成功感	
新鮮感、挑戰自我能力	新奇、刺激和滿足的經驗	

(繼續參與,增加危機)

# 5. Understanding the defensiveness 了解抗拒

抗拒係正常的反應,大腦傾向回應使我們愉悅的事物,而去抗拒使自己感到不舒服的要求和事物。

## Stages of change model 改變模式

Diclemente Prochaska 1982

## 青少年

#### 維持期

• 重建及維持健康生活模式

# 老師/家長

#### 行動期

- 嘗試以行動面對 及處理成癮問題
- 對成癮問題有深入的反醒,個人態度和價值觀開始有改變

#### 前思索期

- 享受從成癮行為而來的興奮、刺激或 成功感
- 對成癮行為所衍生的壞影響缺乏 認知
- 不主動求助,未有準備改變

#### 思索期

開始意識到成癮行為在個人生活 各方面所衍生的壞影響但仍然未 有準備改變

### 準備期

- 明白和接受改變成癮行為的 重要性和正面價值
- 開始計劃如何戒賭

# 6. 預防青少年成癮問題

# GEAR (裝備) 計劃

- (i) 提供足夠的引導(Guidance)
- (ii) 建立人與人之間的親密感及歸屬感 (Emotional Support / Attachment)
- (iii) 建立目標感成功感(Sense of Achievement)
- (iv) 增強抗逆力,減少不必要的壓力 (Resilience)

## Authoritarian(專制) vs. Authoritative(權威)

Authoritarian 專制 強調服從、懲罰、強硬方式。孩童應該聽從成年人的命令及不鼓勵有商討空間(Baumrind, 1989)。

Authoritative 權威 以理性和問題為本態度方式直接指示孩童。鼓勵他們有獨立思考和回應合乎社會規範 (Baumrind, 1996)。

# 建立人與人之間的親密感及歸屬感

腦部發展研究反映出在早期發展時的親密感及歸屬感, 會影響日後腦部有關與人之間的情緒功能發展 (Schore, 1994)。

因此,親密感及歸屬感是康復過程中十分重要的元素。

短片

## 壓力反應的種類

(1) Acute stress 急性壓力反應 影響

急性壓力反應是最常見的,來自剛經歷或短期面對的事情,所帶來的過度要求和所產生的壓力。短時間的急性壓力反應讓人感到震撼和激動,但長時間會讓人筋疲力盡。

情緒激動不穩、易怒、焦慮和抑鬱; 緊張性頭痛、背痛、肌肉緊張崩緊

身體反應 - 高血壓、心跳快、手心出 汗、心悸、暈眩、偏頭痛、手腳凍、 呼吸短促、胸口痛

Source: American Psychological Association, 2017

# 壓力反應的種類

## (2) Chronic stress 慢性壓力反應

慢性壓力反應出現於人們長時間和持續地活在一個對自己苛刻和滿有壓力

的環境內,對此環境感到不幸和絕望 認為苦無出路,甚至放棄尋找解決方 法。

#### 影響

慢性壓力反應可能引致嚴重的健康問題如中風、癌症等。甚至自我傷害、

暴力。慢性壓力反應的症狀處理方法十分困難,因為長時間損耗身心,所以需配合醫療、心理及行為治療和壓力管理。

# 有害的處理壓力方法

當人感到壓力時,會自然尋找方法讓自己感覺好一些。這些方法稱為應變策略(coping strategy)。而有些處理方法雖能帶來較快的果效,卻會帶來長期傷害,壓力亦會增加,這些方法稱為負面策略(negative strategy)。試想想有那些會帶來傷害的處理壓力方法:

- 欺凌行為
- 打鬥
- 逃學/離家出走
- 孤立自己/脫離群組
- 自我傷害
- 性行為
- 成癮行為:酒精、吸食毒品、吸煙、賭博、飲食失調等等

# 有效處理壓力方法-家長教育

- 1. 接納自己不足,不用事事力求完美主義理性、有條理、有原則、有毅力、非常負責任、能夠自我控制。注重細節,希望提高生產率。慣于激勵他人提升自己,變得更加有效和條理性,所以對自己及他人會變得過于批判。不喜歡浪費時間和粗心,可能會變得無論大小事情都去插手,有時會做出令人洩氣的批評。
- 2. 對子女合理要求
- 3. 增加抗壓的本錢
  - 健康飲食
  - 足夠的睡眠
  - 運動
  - 與家人/朋友甜蜜時光
  - 建立避難所

# 有效處理壓力方法-學生計劃

- 1. 認識壓力 思維上的改變
- 2. 認識壓力與成癮問題的關係
- 3. 增加抗壓的本錢
  - 健康飲食
  - 足夠的睡眠
  - 運動
  - 與家人/朋友甜蜜時光
  - 建立避難所

# 建議

- ✓提供劃一預防青少年成瘾的教育計劃
- ✓加強家長教育
- ✓加強對老師及社工的專業培訓

# How do we respond when found out students smoking and drinking?

- 1. Setting the groundwork aims (not punishment focused), confidentiality, etc.
- 2. Explore underlying reasons for smoking and drinking
  - Curiosity?
  - Escape /Coping expectations, pressures, peers, family?
  - Peer pressure
  - Addiction
- 3. Acknowledge underlying needs
- 4. Possible outcomes (change based)
  - Psycho education risks of addictive behaviour
  - Alternative ways of meeting the underlying needs
  - Referrals to counselling
  - Warning (avoid punishment)
  - Punishment (always accompany with 洗底)
- 3. Follow up

# **Motivational Interviewing**

## 動機式訪談法

## MI 的基本精神

- Partnership 伙伴的關系
- Acceptance 接納
- Evocation 喚起/啟發
- Compassion 至誠為人

每次面見學生用 20%時間用作關係建立 (20% Rule, Rollnick, 2012)

多用反映 (Reflection) 和 肯定 (Affirming)

## Reflective listening

- 小明:「死啦,今晚要同媽咪講我考試得2科合格。」
- 老師:「你好擔心要同媽咪講你考試的成績。你擔心什麼事會發生呢?」
- 小明:「我擔心媽媽會大發脾氣收咗我架手機」。
- 老師:「你擔心因為你考試的成績令到你有手機用,如果真係有手機用, 對你的影響是什麼?」
- 小明:「我應承咗班 friend 今晚一齊決戰, 死啦, 比阿媽收咗部手機今晚就打唔到機啦!」
- 老師:「如果你今晚打唔到機會發生什麼事呢?」
- 小明:「我班 friend 一定鬧爆我,我好面 lo。」
- 老師:「所以你唔想係班 friend 面前瘀,你其實想有個好的形象,你最想人 地點看你?」…

# Group exercise

If you were assigned to talk a student who was discovered of involving in either smoking or drinking alcohol:

- (A) 3-4 people in one group
- Work out how can you set a ground work that facilitate the conversation that minimize defensiveness
- (B) 3-4 people in one group
- Work out 3 questions in step 2 to explore the underlying issues of student's drinking/ smoking behaviour
- Work out 3 responses to acknowledge underlying needs
- (C) 3-4 people in one group
- Work out 3 responses in step 4 even when the youth reacts very defensively
- Work out 3 possible way to invite student for follow up