



**HKU
Med**

LKS Faculty of Medicine
School of Nursing
香港大學護理學院

A combined cessation intervention with brief advice, nicotine replacement therapy sampling and active referral (BANSAR) for smoking fathers: a multicenter, single-blinded, pragmatic randomised controlled trial

Principal applicant

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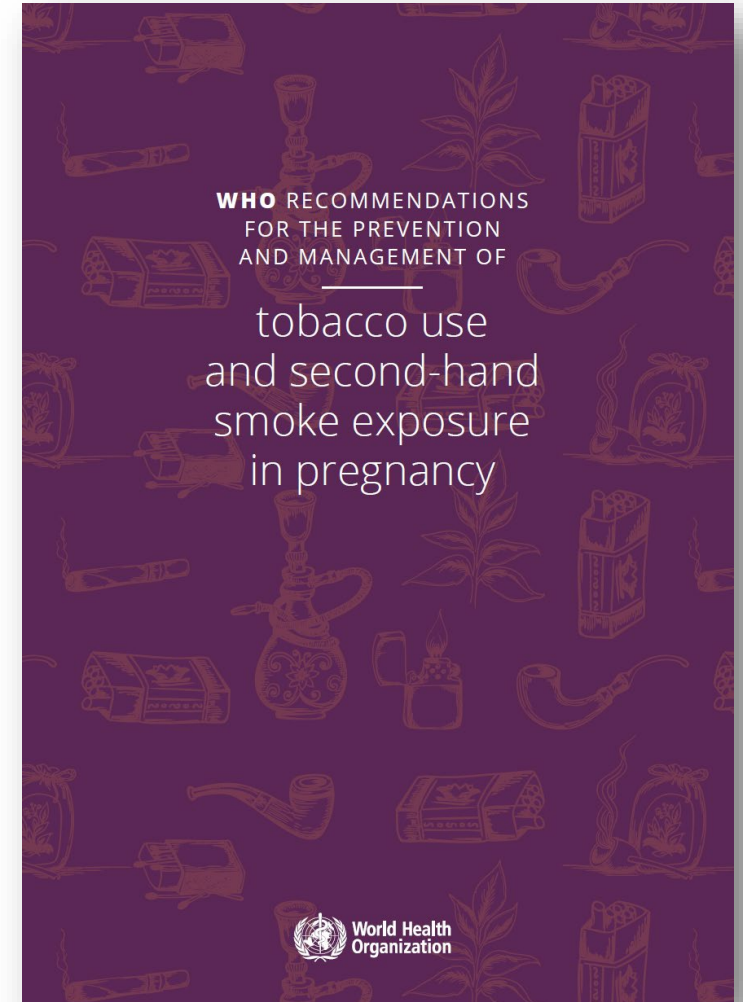
Co-applicants

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Introduction

- Pregnant non-smokers exposed to secondhand smoke had higher risk of adverse perinatal outcomes, including stillbirth, congenital anomaly and developmental delay
- Pregnancy is a teachable moment to engage expectant fathers in smoking cessation, but evidence from randomised controlled trials were limited
- The World Health Organization¹ strongly recommend and calls for more research on how to help expectant fathers quit smoking to protect their partners from secondhand smoke exposure



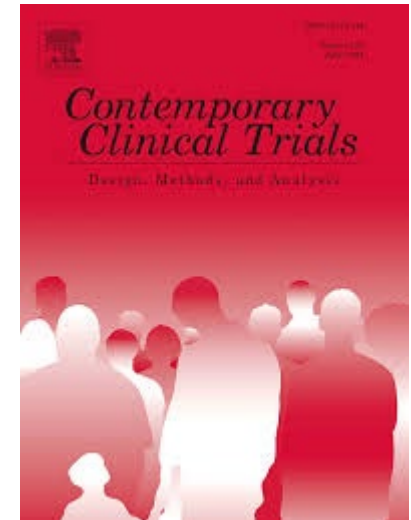
¹ World Health Organization. (2013). WHO recommendations for the prevention and management of tobacco use and second-hand smoke exposure in pregnancy. World Health Organization. <https://apps.who.int/iris/handle/10665/94555>

- In Hong Kong, 3 out of 10 partners of mothers with a new born were smokers²
- Most expectant fathers accompany their partners for prenatal visit at least once, but those who smoke rarely receive any cessation support from the clinicians
- Study objective:
 - To test the effectiveness of a brief intervention combining 3 simple strategies (Brief Advice, Nicotine replacement therapy (NRT) Sampling and Active Referral) in promoting smoking cessation in expectant fathers who smoke

² Lok KYW, Wang MP, Chan VHS, Tarrant M. Effect of Secondary Cigarette Smoke from Household Members on Breastfeeding Duration: A Prospective Cohort Study. *Breastfeed Med.* 2018;13(6):412-417. doi: [10.1089/bfm.2018.0024](https://doi.org/10.1089/bfm.2018.0024)

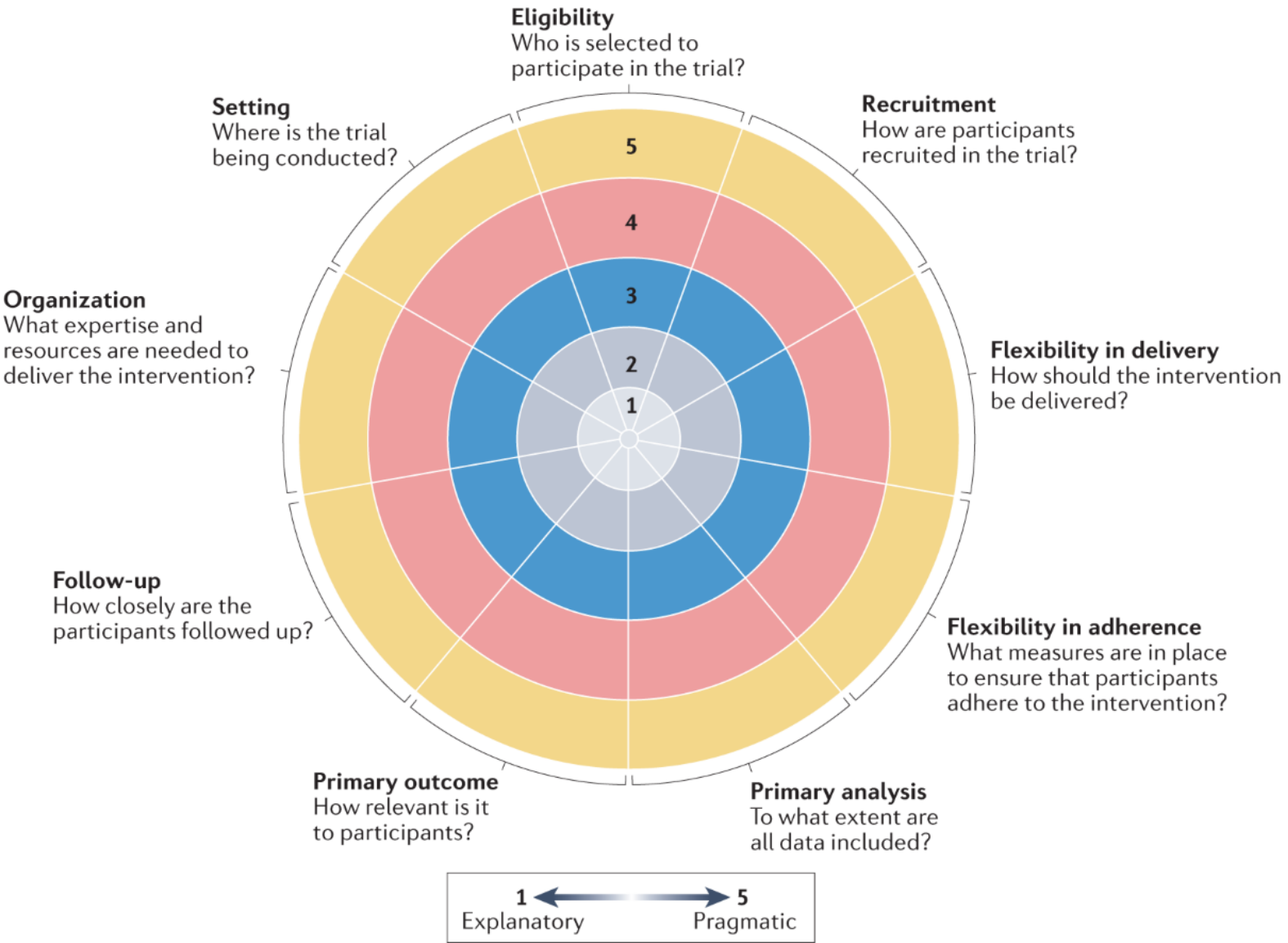
Methods

- **Design:** Pragmatic, multicentre randomised controlled trial
- **Settings:** Prenatal clinics in 7 public hospitals in Hong Kong
 - Kwong Wah Hospital
 - Queen Elizabeth Hospital
 - Queen Mary Hospital
 - United Christian Hospital
 - Tuen Mun Hospital
 - Pamela Youde Nethersole Eastern Hospital
 - Princess Margaret Hospital



Luk TT, Hsieh CJ, Leung WC, Leung KY, Cheung KW, Kwa C, Siong KH, Tang KK, Lee KW, Li WHC, Lam TH, Wang MP. Brief cessation advice, nicotine replacement therapy sampling and active referral (BANSAR) for smoking expectant fathers: study protocol for a multicentre, pragmatic randomised controlled trial. *Contemp Clin Trials*. 2020; 93: 106006.

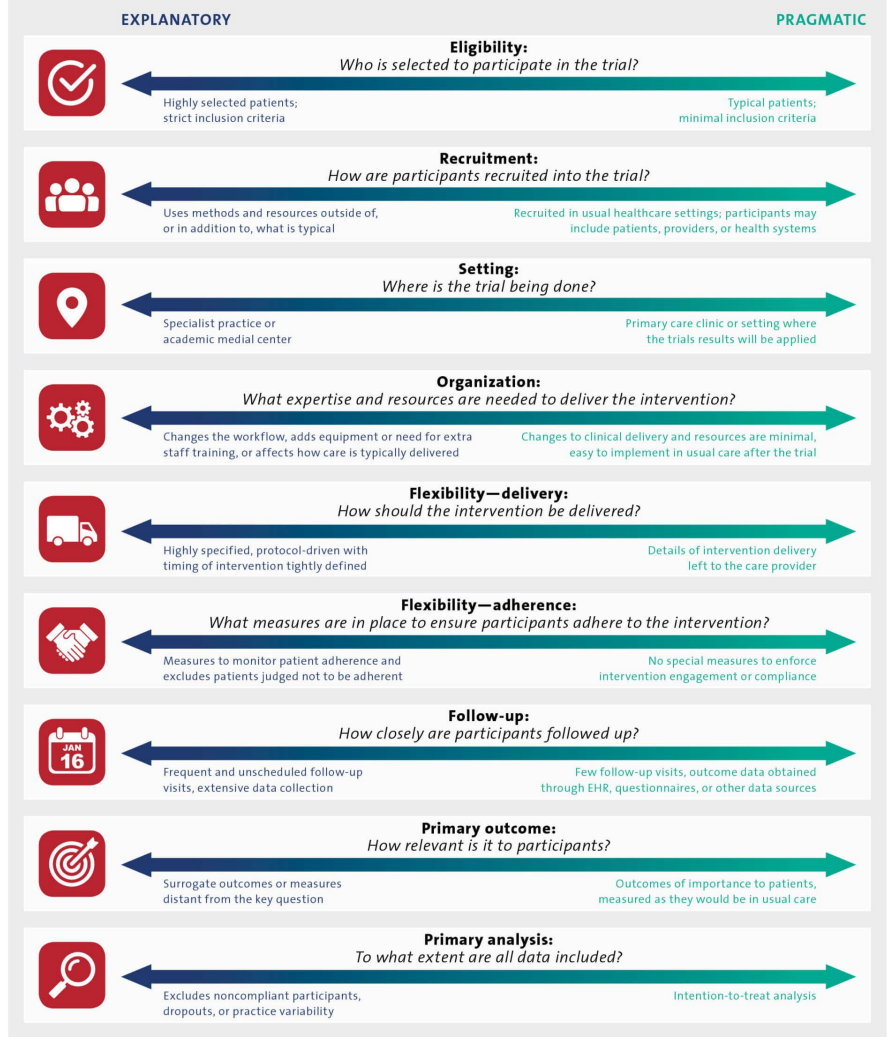
Pragmatic trial design



HOW IS A CLINICAL TRIAL CONSIDERED PRAGMATIC?

An **EXPLANATORY** approach answers the question, "Can this intervention work under ideal conditions?"
A **PRAGMATIC** approach answers the question, "Does this intervention work under usual conditions?"

A trial's degree of pragmatism will vary along this spectrum:



Participants



- Male daily cigarette smokers whose partners were pregnant and non-smokers
- Both expectant fathers and mothers were Hong Kong residents aged 18+ years and living together in the past 7 days, and able to communicate in Cantonese or Mandarin
- Participants were randomised 1:1 to the intervention group or control group

Intervention group

- Three components of the intervention
 1. Brief advice to quit smoking (AWARD model)
 - Ask about the smoking status
 - Warn about the health risk of perinatal tobacco smoking exposure
 - Advice to quit as soon as possible
 - Refer: active referral to SC services (point 3 below)
 - Do-it-again: telephone boosters x 2 within the first month
 2. Nicotine replacement therapy (NRT) sampling
 3. Active referral to SC service

Intervention leaflet

- Health warning leaflet with information on local cessation services

準爸爸



戒煙

俾 BB 最好嘅第一份禮物

SCHOOL OF NURSING
LI KA SHING FACULTY OF MEDICINE
THE UNIVERSITY OF HONG KONG
護香港理大學
院學

SCHOOL OF PUBLIC HEALTH
THE UNIVERSITY OF HONG KONG
香港大學公共衛生學院

二手煙，三手煙 對屋企人嘅影響

二手煙環境造成孕婦「被動吸煙」吸收尼古丁；
長期接觸處二手煙的人，患上與吸煙有關疾病風險，高過吸煙者；
三手煙係附著在環境同身體嘅尼古丁有毒微粒，可殘留數月，
更易被周圍爬的幼兒接觸，甚至食入口中。



肺癌

60 萬人每年因二手菸致命。

新生兒出生體重過輕

出生時體重過輕，增加猝死風險。

流產

胎兒缺氧、發育不良，
增加自然流產風險。

智商下降

二手煙造成兒童認知能力降低，
注意力不集中、智商下降。

**早產
新生兒併發症**

妊娠期短，增加新生兒併發症、
呼吸窘迫、嬰兒猝死的風險 2 倍。

呼吸道疾病

兒童增加哮喘、
上呼吸道感染、中耳炎風險。

懷孕期間接觸二、三手煙，準媽媽健康受到威脅，
煙嘅有害物質同時間都通過胎盤，直接影響咗 BB 嘅健康。

冇味道 ≠ 無害！
加熱式煙草 (IQOS)、電子煙嘅煙霧，
同樣有尼古丁同有毒微粒，造成二手煙、三手煙危害。

資料來源：
臺灣衛生署控煙辦公室
Ashford, K. S., Hahn, E., Hill, L., Ravenc, M. K., Noland, M. and Ferguson, J. E. (2010). The Effects of Prenatal Secondhand Smoke Exposure on Preterm Birth and Neonatal Outcomes. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 39: 525-535.
http://3.bp.blogspot.com/7DyeK11FPk8/V6RJDZgnI/AAAAAAAAMc/AMLGcVWQzYL1EPDwvX4JGBUzGAD9GCK4B/s1600/Father%26amp%26Child%26amp%26Heart.png
http://i.epochtimes.com/assets/uploads/2018/05/1-86-60x400.jpg

停止吸煙 家庭健康和樂



- 保護 BB 呼吸道及肺發育健全
 - 有效降低 BB 患哮喘、肺部感染風險
- 俾屋企人無菸生活環境
 - 提高生活素質，令屋企人更健康
- 成為 BB 好榜樣
 - 建立一個良好健康的形象
- 煙錢，為家庭累積財富
 - 戒一天一包煙，一年可省超過 21,000 港元
- 降低肺癆風險
 - 患上肺癆及其他癌症機會降低
- 嗅覺、味覺改善
 - 味蕾敏感度恢復，更能品嚐食物美味
- 維持正常血壓、心跳
 - 從停止吸煙那刻起，身體機能已開始逐漸改善
- 降低冠心病、中風風險
 - 戒煙 2 周起患上心臟病機率開始下降，5 年後中風風險降低與非吸煙者相同

戒煙療程

1. 評估
2. 輔導及諮詢
3. 免費一週尼古丁替代療法
4. 免費轉介戒煙服務：
 - 東華三院戒煙服務
 - 博愛中醫針灸戒煙
5. 電話跟進服務及核實

戒煙熱線：
5463 8741

戒煙熱線服務

衛生署綜合戒煙熱線
電話：1833183
- 註冊護士電話輔導
- 電腦來電處理系統提供戒菸資訊

東華三院戒煙綜合服務中心
電話：2332 8977
- 社區免費戒菸服務，跨專業團隊針對個人需求提供藥物醫療及輔導。
- 免費戒菸輔助藥物及諮詢。

醫院管理局無煙熱線
電話：2300 7272 服務中心：全港 18 區普通科門診、健康中心及醫院
- 訂定戒菸方案，並提供戒煙藥物醫療服務
- 電話輔導及電話跟進

博愛醫院中醫免費戒煙服務
電話：2607 1222
服務中心：18 區專科診所及中心及流動醫療車超過 100 個地點
- 針對個人體質提供針灸治療及調理建議，安全高效並輔以戒菸輔導。

香港大學青少年戒煙熱線
電話：2855 9557
- 25 歲以下青年戒煙熱線
- 提供瘦身訂造電話戒菸輔導

家庭醫學深造培訓中心：牛頭角賽馬會診所 2 樓

服務中心：灣仔、觀塘、荃灣、沙田、屯門

無煙生活小貼士

- #1 訂下目標，運用意志
訂下戒菸日，貫徹始終；同時告知身邊的人，得到支持同鼓勵。
- #2 唔要讓口停下來
嚼香口膠、飲一杯水、隨身帶住硬喉糖食。
- #3 拖延
想食煙時，在心中慢慢從一感到十，說下點解要戒煙（例如：為咗屋企人）；重覆幾分鐘，煙癮就可以退下來。
- #4 分散注意力
改變青少年生活習慣，同伴侶一齊嘗試新的活動，例如育兒課程、同胎兒傾計。

1-week free NRT sample

- 1-week free NRT sample with an instruction card
 - Dosage based on cigarettes per day

Transdermal Patch



Chewing gums



如何使用戒煙貼 - 尼古丁補充貼片

戒煙貼片使用 _____ 毫克 每日使用時間 _____

使用戒煙貼期間必須停止吸煙，以免導致過量尼古丁吸收及加劇身體對尼古丁的需求。

建議用法：

- 起床/睡前/洗澡後貼在清潔乾爽、沒傷口的皮膚上(上臂、大腿、上臂)，並按壓10秒。
- 使用及更換時，手接觸到戒煙貼後，請用清水洗手及避免接觸眼睛。
- 若洗澡或游泳導致戒煙貼脫落，可換上新戒煙貼片，其後依每天慣常時間更換貼片。
- 如多汗導致貼片易脫落，可加以膠布或敷料固定貼加強固定。

一般注意事項：

- 可能影響睡眠品質，多夢、難入睡等。

解決方法：避免睡覺期間使用。

- 可能皮膚敏感(紅印為正常反應，約1-2天後消退)。

解決方法：每日更換附貼位置，避免附貼幼嫩肌膚。



對尼古丁替代療法有任何疑問或諮詢，請聯絡：

戒煙輔導護士 電話：5368 5893



如何使用戒煙香口膠 - 尼古丁補充療法

戒煙貼片需要時使用/約每 _____ 小時使用一粒 每日最多使用 _____ 粒

使用戒煙香口膠期間必須停止吸煙，以免導致過量尼古丁吸收及加劇身體對尼古丁的需求。

建議用法：

1. 慢慢咀嚼10-15次。
2. 將香口膠置於面頰與牙肉之間1-2分鐘讓尼古丁吸收。
3. 重複以上的步驟直至香口膠全無味道為止或咀嚼30分鐘。
4. 咀嚼香口膠時或使用前15分鐘，應避免飲食，尤其避免酸性飲品，如汽水、咖啡、果汁。

一般注意事項：

- 可能有喉嚨痛、打嗝。
- 不適合有牙齦疾患、口腔炎、喉炎、容易胃痛及配戴可拆除假牙的人士。



對尼古丁替代療法有任何疑問或諮詢，請聯絡：

戒煙輔導護士 電話：5368 5893



Control group



- Control group only receive advice to quit smoking and a standard leaflet by the Department of Health on the hazards of perinatal tobacco smoke exposure

吸煙禍及家人

吸煙的禍害不單是「一人做事一人當」，而是會禍及身邊的家人、朋友和同事。吸二手煙承受着主流煙和支流煙所帶來的害處。


二手煙對胎兒的影響

孕婦吸煙肯定對胎兒有以下的影響：

- 胎死腹中
- 早產的機會率增加
- 嬰兒出生時的體重較輕
- 研究指出，香煙內的致毒物質可能會經由胎盤傳給胎兒

研究證實，二手煙可導致嬰兒罹患猝死症，增加幼兒及兒童罹患下呼吸道疾病(肺炎、支氣管炎)和哮喘的機會，所以及早為嬰兒締造無煙的環境至為重要。

吸煙對你孩子能造成永久性的傷害，你絕對能夠改變這情況。現在立即戒煙!

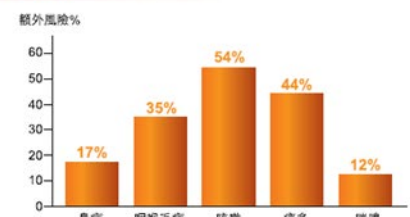


孩子的心聲：

爸媽，請你們立即戒煙！你們可曾知道，吸煙父母給我們帶來很多難言之忍。

- 你們吸煙，家中整日煙氣逼人，令我們窒息。
- 你們吸煙，不但令我們咳嗽和流眼水，更會損害我們的健康，容易患上支氣管疾病。
- 你們吸煙，引起旁人不快或不適。看看你們的煙屎牙、口氣和皺紋，很不好看。
- 你們吸煙，帶給我們壞榜樣，我們經常有仿效你們吸煙的意念。
- 你們吸煙，花了很多金錢，不但令你們為此經常吵鬧，也剝削了我們買玩具的機會。
- 你們吸煙，令運動力減低，衰老加速，不願帶我們出外活動。
- 「香港政府忠告市民吸煙可以致命」。我們不想成為孤兒。

從未吸煙兒童在家中吸二手煙而患呼吸系統疾病的額外風險



額外風險%	疾病
17%	鼻病
35%	咽喉毛病
54%	咳嗽
44%	痰多
12%	哮喘

(參考自香港吸煙與健康委員會，兒童吸煙與被動吸煙1998第五號報告書)

資料顯示，二手煙增加兒童患上呼吸道感染、咳嗽、痰多及增加哮喘的機會。

首次檢查

其它研究亦顯示三個月以下的嬰兒容易因為吸入二手煙而增加感染的機會。此外，八歲以下曾吸入二手煙的兒童，因受感染而入院的風險亦會較高。

但最重要的是在耳濡目染下，吸煙人士的子女習染吸煙之機會較非吸煙人士的子女為高。

所以吸煙對兒童構成嚴重危險，請即戒煙！
使用尼古丁替補療法或參與個別輔導均能使戒煙成功機會倍增。



戒煙熱線：衛生署綜合戒煙熱線 1833 183
醫院管理局無煙熱線 2300 7272
網頁：衛生署控煙辦公室 <http://www.tco.gov.hk>

FHS-MH-14B (2016年7月修訂)

Outcomes

- Primary outcome:
 - Biochemical validated tobacco abstinence at 6 months post-randomisation
 - Verified by an exhaled carbon monoxide test <4 ppm
- Secondary outcomes:
 - Self-reported 24-week continuous abstinence at 6 months
 - Self-reported 7-day point-prevalent abstinence
 - Quit attempt, use of NRT, use of cessation service



Sample size calculation

- Intervention effect was based on previous RCT on active referral for smoking cessation³
 - 6-month biochemical validated abstinence in the control group: 5%
 - Effect size = 1.85
- Allocation ratio 1:1, 80% Power, 2-sided 5% level of significance
- Total participants needed: 1148 (574 per group)

³ Wang MP, Suen YN, Li WH, Lam CO, Wu SY, Kwong AC, Lai VW, Chan SS, Lam TH. Intervention With Brief Cessation Advice Plus Active Referral for Proactively Recruited Community Smokers: A Pragmatic Cluster Randomized Clinical Trial. *JAMA Intern Med.* 2017;177(12):1790-1797. doi:10.1001/jamainternmed.2017.5793.

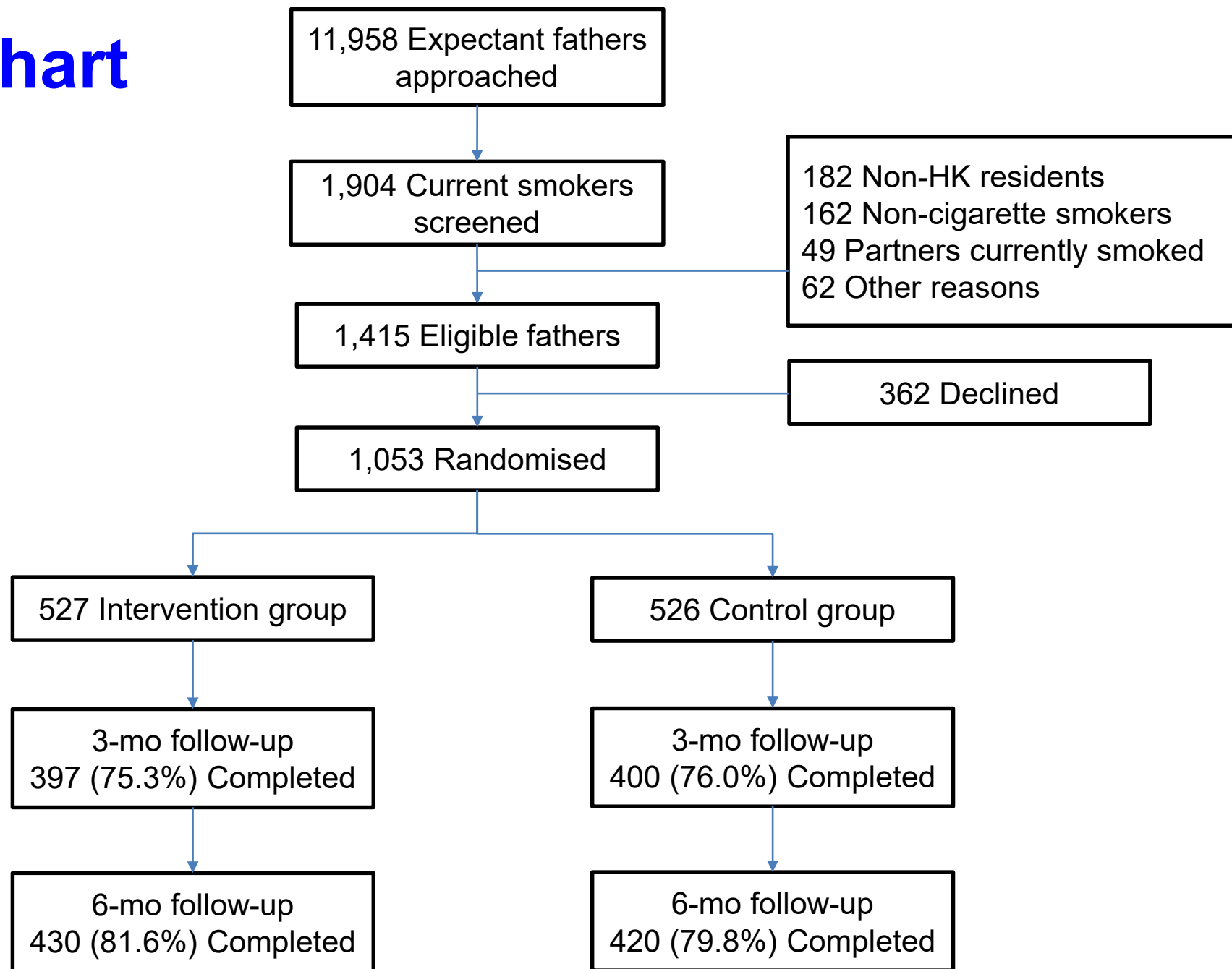
Statistical analyses

- Main analyses:
 - Intention-to-treat
 - Participants with missing outcome were assumed to be continuing smokers
- Sensitivity analyses
 - Multivariable analyses to adjust for baseline prognostic factors
 - Multiple imputation
 - Complete case analyses

Results

- Recruitment period: Oct 2018 to Feb 2020
- Recruitment suspended in Feb 2020 because of COVID-19
 - Participants enrolled = 1053 (91.7% of the target sample size)
- An independent data monitoring committee concluded that the trial can be terminated early for efficacy in Sept 2020
 - HMRF approved the trial termination in Oct 2020

Trial flowchart



Baseline characteristics

Characteristic	No. (%) ^a	
	Intervention group (n = 527)	Control group (n = 526)
Age group, y		
18-25	59 (11.3)	42 (8.1)
26-35	272 (51.8)	280 (53.7)
36-45	168 (32.0)	183 (35.1)
46-55	25 (4.8)	16 (3.0)
56-65	1 (0.2)	0
Educational level		
≤Junior secondary	155 (30.3)	156 (30.5)
Senior secondary	243 (47.5)	224 (43.8)
Tertiary	114 (22.3)	132 (25.8)
Daily cigarette consumption		
Median (IQR), No.	10 (5-15)	10 (5-15)
1-10	365 (69.3)	362 (68.8)
11-20	153 (29.0)	158 (30.0)
≥21	9 (1.7)	6 (1.1)
Time to first cigarette of the day, min		
<5	141 (26.8)	122 (23.2)
5-30	72 (13.7)	88 (16.7)
31-60	77 (14.6)	76 (14.4)
>60	237(45.0)	240 (45.6)

Heaviness of smoking index^b		
Median (IQR)	1 (0-3)	1 (0-3)
Light: 0-2	355 (67.4)	370 (70.3)
Moderate: 3-4	165 (31.3)	150 (28.5)
Heavy: 5-6	7 (1.3)	6 (1.1)
Exhaled carbon monoxide level, median (IQR), ppm		
	14 (8-23)	14 (8-22)
Previous quit attempt		
Never	206 (39.1)	198 (37.7)
>12 mo	260 (49.3)	283 (53.9)
Within 12 mo	61 (11.6)	44 (8.4)
Readiness to quit		
Undecided	403 (76.5)	397 (75.5)
Within 60 d	21 (4.0)	19 (3.6)
Within 30 d	47 (8.9)	50 (9.5)
Within 7 d	56 (10.6)	60 (11.4)
Perception of quitting, median (IQR)^c		
Importance	9 (7-10)	8 (7-10)
Difficulty	8 (5-10)	8 (5-10)
Confidence	5 (5-8)	5 (5-8)
Use of heated tobacco products		
Never	300 (57.0)	291 (55.4)
Just tried	187 (35.6)	192 (36.6)
Current: past 30 d	39 (7.4)	42 (8.0)

Stage of pregnancy of the expectant mother, trimester		
First	108 (21.1)	105 (20.5)
Second	290 (56.8)	288 (56.3)
Third	113 (22.1)	119 (23.2)
Smoking status of the expectant mother		
Never	272 (52.1)	308 (59.5)
Just tried	73 (14.0)	62 (12.0)
Quit		
Before pregnancy	48 (9.2)	45 (8.7)
After pregnancy	129 (24.7)	103 (19.9)
Living with another smoker		
No	411 (79.5)	406 (78.7)
Yes	106 (20.5)	110 (21.3)

Abbreviations: IQR, interquartile range; ppm, parts per million.

^a Sample sizes varied because of missing data on some variables.

^b Scores ranged from 0 to 6, with higher scores indicating greater cigarette dependence.

^c Scores ranged from 0 to 10, with higher scores indicating greater importance, difficulty, or confidence.

Higher rates of quitting in intervention group

Outcome	No. (%)		OR (95% CI)	P value
	Intervention group (n = 527)	Control group (n = 526)		
Primary outcome				
Biochemically validated abstinence at 6 mo after intervention initiation	36 (6.8)	19 (3.6)	1.96 (1.11-3.46)	.02
Secondary outcomes				
Self-reported 24-wk continuous abstinence at 6 mo after intervention initiation	38 (7.2)	21 (4.0)	1.87 (1.08-3.23)	.03
Self-reported 7-d PPA				
3 mo After intervention initiation	91 (17.3)	65 (12.4)	1.48 (1.05-2.09)	.03
6 mo After intervention initiation	139 (26.4)	90 (17.1)	1.74 (1.29-2.34)	<.001
24-h Quit attempt				
3 mo After intervention initiation	213 (40.4)	171 (32.5)	1.41 (1.08-1.80)	.008
6 mo, Cumulative	314 (59.6)	259 (49.2)	1.52 (1.19-1.94)	<.001
Use of NRT				
3 mo After intervention initiation	150 (28.5)	9 (1.7)	22.6 (11.4-45.0)	<.001
6 mo, Cumulative	184 (34.9)	10 (1.9)	27.7 (14.4-53.1)	<.001
Use of smoking cessation service				
3 mo After intervention initiation	15 (2.8)	7 (1.3)	2.17 (0.88-5.37)	.09
6 mo, Cumulative	25 (4.7)	15 (2.9)	1.70 (0.88-3.26)	.11

Abbreviations: NRT, nicotine replacement therapy; OR, odds ratio; PPA, point prevalence abstinence.

Planned sensitivity and subgroup analyses

- Results from GEE model, multivariable models, multiply-imputed data analyses and complete case analyses were consistent with that of main analyses
- Results were similar across participants of different characteristics
 - Cigarette dependence
 - Readiness to quit
 - Previous quit attempt
 - Stage of pregnancy
 - Presence of other smokers at home
 - Ever smoking status of the pregnant women

Better outcomes in continuing smokers of intervention group



Outcome	No./total No. (%)		P value ^b
	Intervention group	Control group	
Smoking reduction			
3 mo Follow-up	95/436 (21.8)	83/461 (18.0)	.16
6 mo Follow-up	97/388 (25.0)	103/436 (23.6)	.65
Change in heaviness of smoking index, mean (SD) ^c			
3 mo Follow-up	-0.38 (1.2)	-0.28 (1.1)	.26
6 mo Follow-up	-0.37 (1.0)	-0.15 (1.1)	.003
Change in readiness to quit, mean (SD) ^d			
3 mo Follow-up	-0.11 (1.0)	-0.09 (0.9)	.82
6 mo Follow-up	-0.06 (1.1)	-0.12 (1.0)	.46

^a The denominators in both intervention and control groups included only participants who continued to smoke during follow-up periods and hence were not representative of all randomized participants.

^b P value of χ^2 test or 2-sample *t* test.

^c Mean change from baseline to follow-up periods. Scores ranged from 0 to 6, with higher scores indicating greater cigarette dependence.

^d Mean change from baseline to follow-up periods. Scores ranged from 0 to 3, with higher scores indicating greater readiness to quit.

Higher satisfaction levels on the intervention



Rating	Intervention group	Control group	P value ^a
Perceived appropriateness of brief advice ^b			
No. of participants	356	345	
Mean (SD) score	4.2 (0.8)	4.1 (0.9)	.11
Median (IQR) score	4 (4-5)	4 (4-5)	.22
Perceived helpfulness of brief advice ^b			
No. of participants	355	350	
Mean (SD) score	3.4 (1.0)	3.4 (1.0)	.97
Median (IQR) score	4 (3-4)	4 (3-4)	.74
Perceived helpfulness of leaflet ^b			
Read the leaflet, No./total No. (%)	241/356 (67.7)	238/343 (69.4)	.63
Mean (SD) score	2.6 (1.1)	2.7 (1.1)	.72
Median (IQR) score	3 (2-4)	3 (2-4)	.74
Intervention satisfaction ^c			
No. of participants	346	311	
Mean (SD) score	6.3 (2.2)	5.7 (2.6)	.004
Median (IQR) score	7 (5-8)	6 (5-7)	.01

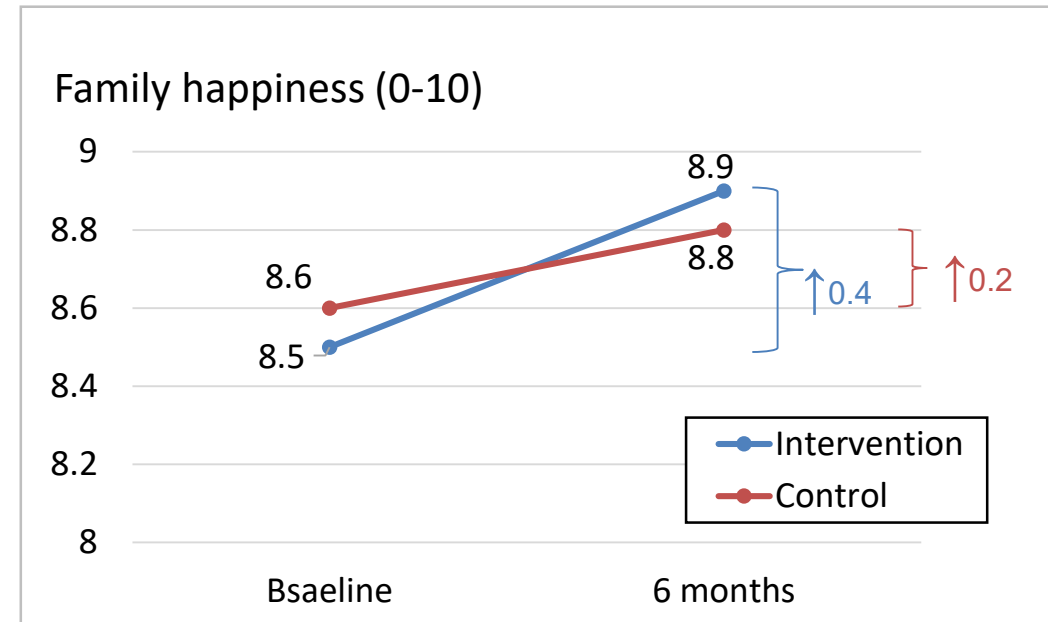
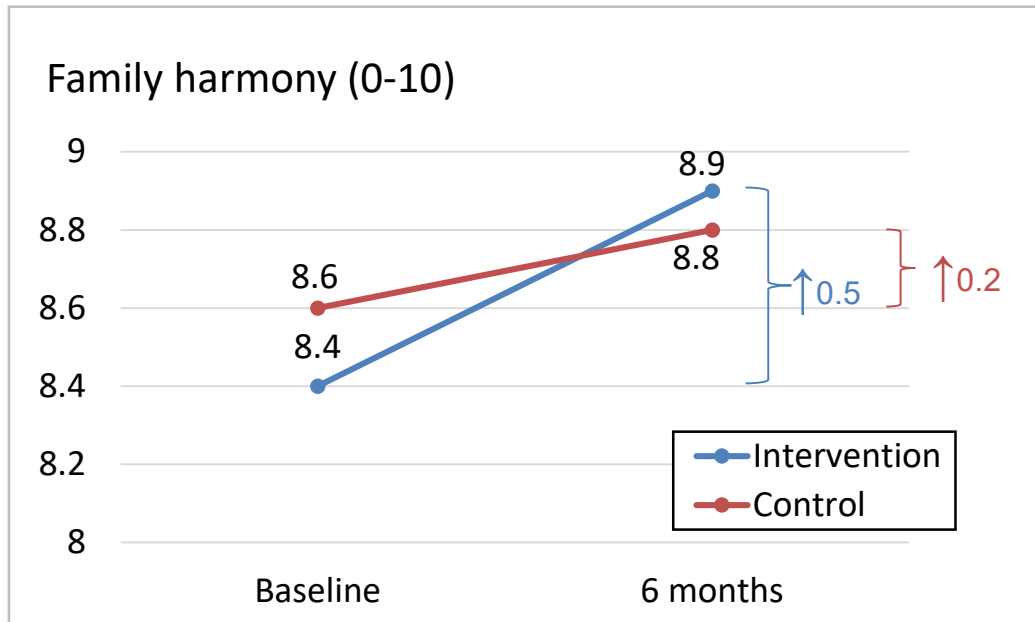
Abbreviation: IQR, interquartile range.

^a P value of 2-sample *t* test or Wilcoxon rank-sum test.

^b Scores ranged from 1 (not appropriate/helpful at all) to 5 (very appropriate/helpful).

^c Scores ranged from 0 to 10, with higher scores indicating greater satisfaction.

Improved perceived family relationship



	Mean (SE)		Unstandardized, B (95% CI) ^a	P value
	Intervention (N=527)	Control (N=526)		
Perceived family harmony^b				
Baseline	8.43 (0.07)	8.57 (0.07)		
6 months	8.95 (0.06)	8.80 (0.07)	0.28 (0.063 to 0.50)	.01
Perceived family happiness^b				
Baseline	8.53 (0.06)	8.64 (0.06)		
6 months	8.87 (0.06)	8.80 (0.06)	0.17 (-0.041 to 0.38)	.12

^a Coefficient for the time × group interaction, which denotes the difference in change in perceived family harmony/ happiness from baseline to 6 months (intervention vs control)

^b Scores ranged from 0 to 10, with higher scores indicating better perceived family harmony/ happiness

Discussion

- Providing brief advice, 1-week NRT sampling and active referral can nearly double the quit rate when compared with brief advice alone in expectant fathers who smoke
- The real-world intervention effect is likely larger since expectant fathers typically do not receive any cessation support in usual practice in HK, but the control group at least receive brief advice
- The increase in family harmony refuted previous concern that communicating the risk of perinatal tobacco smoke exposure could fuel conflicts between the expectant father and mother

Implications

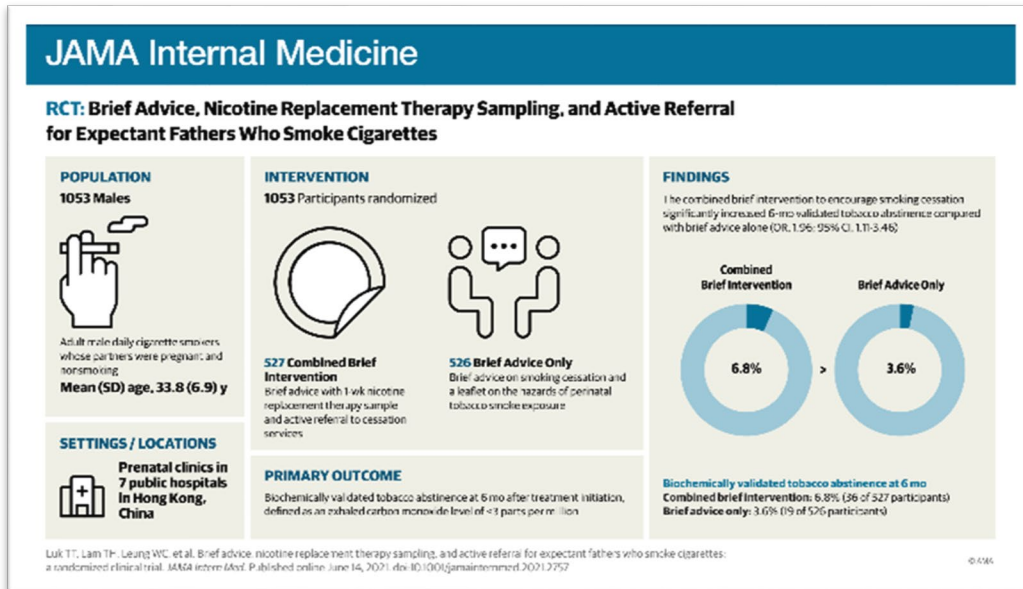
- Failure to engage expectant father in smoking cessation is a missed opportunity to promote smoking cessation and reduce secondhand smoke exposure
- A unique opportunity to help expectant fathers quit smoking when they are still relatively young and healthy, a period in which they are less likely to consult a doctor and to benefit from opportunistic cessation intervention in primary care
 - Smoking cessation by the age of 40 years could avert the risk of smoking-related death by nearly 90%, compared with continued smoking⁴
- Providing brief cessation intervention to expectant fathers should be a part of routine practice in prenatal care

⁴Jha P, Ramasundarahettige C, Landsman V, et al. 21st-century hazards of smoking and benefits of cessation in the United States. *N Engl J Med.* 2013;368(4):341-350. doi:10.1056/NEJMsa1211128

Full trial results

Citation:

Luk TT, Lam TH, Leung WC, Leung KY, Cheung KW, Kwa C, Siong KH, Tang KK, Lee KW, Hsieh CJ, Wu YS, Li WH, Wang MP. Brief Advice, Nicotine Replacement Therapy Sampling, and Active Referral for Expectant Fathers Who Smoke Cigarettes: A Randomized Clinical Trial. *JAMA Internal Medicine* 2021;181(8):1081-1089. doi: [10.1001/jamainternmed.2021.2757](https://doi.org/10.1001/jamainternmed.2021.2757)



Research

JAMA Internal Medicine | Original Investigation

Brief Advice, Nicotine Replacement Therapy Sampling, and Active Referral for Expectant Fathers Who Smoke Cigarettes A Randomized Clinical Trial

Tzu Tsun Luk, PhD; Tai Hing Lam, MD(HK); Wing Cheong Leung, MD(HK); Kwok-Yin Leung, MD(HK); Ka Wang Cheung, MBBS; Carina Kwa, MBChB; Kar-Hung Siong, MBBS; Kwok-Keung Tang, MBChB; Kai-Wan Lee, MBBS; Chi Ju Hsieh, MSc; Yongda Socrates Wu, PhD; William Ho-Cheung Li, PhD; Man Ping Wang, PhD

Visual Abstract
Supplemental content

IMPORTANCE Pregnancy presents an opportunity to engage expectant fathers in smoking cessation, but evidence from randomized clinical trials is scarce.

OBJECTIVE To evaluate the effectiveness of a proactive, combined intervention for smoking cessation in expectant fathers.

DESIGN, SETTING, AND PARTICIPANTS This pragmatic randomized clinical trial in prenatal clinics in 7 public hospitals in Hong Kong proactively recruited and enrolled 1053 participants from October 10, 2018, to February 8, 2020. Included male adults were 18 years or older, smoked cigarettes daily in the past 3 months, had partners who were pregnant and nonsmoking in the past 30 days, and had a landline or mobile telephone number for follow-up. These participants were randomized to either the intervention group or the control group. The primary analyses used an intention-to-treat approach.

INTERVENTIONS The intervention group received brief cessation advice, a 1-week free sample of nicotine replacement therapy (NRT), and active referral to a community-based smoking cessation service. The control group received only brief cessation advice with a leaflet on the hazards of perinatal exposure to tobacco smoke and the toll-free quitline telephone number.

MAIN OUTCOMES AND MEASURES The primary outcome was biochemically validated tobacco abstinence at 6 months after intervention initiation defined by an exhaled carbon monoxide level of 3 parts per million or lower. The secondary outcomes included self-reported 24-week continuous abstinence at 6 months after intervention initiation as well as 7-day point prevalence abstinence, use of any NRT, and use of a smoking cessation service at 3 and 6 months after intervention initiation.

RESULTS All 1053 randomized participants were male adults with a mean (SD) age of 33.8 (6.9) years. The retention rate at 6-month follow-up was 80.7%. The primary outcome of biochemically validated tobacco abstinence at 6 months after intervention initiation was significantly higher in the intervention group than in the control group (6.8% [36 of 527 participants] vs 3.6% [19 of 526]; odds ratio [OR], 1.96; 95% CI, 1.11-3.46; $P = .02$). The main secondary outcomes of self-reported 24-week continuous abstinence at 6 months (OR, 1.87; 95% CI, 1.08-3.23; $P = .03$) and 7-day point prevalence abstinence at 3 months (OR, 1.48; 95% CI, 1.05-2.09; $P = .03$) and 6 months (OR, 1.74; 95% CI, 1.29-2.34; $P < .001$) were also significantly higher in the intervention group. The intervention group had a significantly higher increase in perceived family harmony (score range, 0-10, with a higher score indicating a higher level of harmony) from baseline to 6 months ($B = 0.28$; 95% CI, 0.063-0.50; $P = .01$).

CONCLUSIONS AND RELEVANCE This trial found that combining brief advice with a 1-week sample of NRT and referral to smoking cessation programs nearly doubled the odds that expectant fathers who smoked would achieve validated abstinence compared with providing brief advice alone. The intervention was also effective in promoting family harmony.

TRIAL REGISTRATION ClinicalTrials.gov Identifier: NCT03671707

JAMA Intern Med. 2021;181(8):1081-1089. doi:10.1001/jamainternmed.2021.2757
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SUMMARY AND COMMENT | GENERAL MEDICINE/PSYCHIATRY

INFORMING PRACTICE

July 13, 2021

Simple and Effective Multimodal Smoking-Cessation Intervention for Expectant Fathers

Paul S. Mueller, MD, MPH, FACP, reviewing Luk TT et al. JAMA Intern Med 2021 Jun 14

Brief cessation advice plus free nicotine-replacement products helped some men quit smoking.

News From the JAMA Network

August 3, 2021

Simple Intervention Motivates Expectant Fathers to Quit Smoking

Anita Slomski

JAMA. 2021;326(5):378. doi:10.1001/jama.2021.12117

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HKU Med

HKUMed finds simple intervention effective in helping fathers-to-be quit smoking



領導和統籌是次研究的港大醫學院護理學院副教授王文炳博士(左)及助理教授(研究)陸子璉博士(右)



▲ 港大醫學院一項研究發現，在產檢時為吸煙的準爸爸提供簡單的戒煙介入，可增戒煙成功率近9成。(洗偉倫攝)

孕婦吸入二手煙或會增加胎兒胎死腹中、孩子發展遲緩等健康風險。港大醫學院一項研究發現，在產檢時為吸煙的準爸爸提供簡單介入，包括戒煙建議、轉介戒煙服務等，可以將戒煙成功率增加近9成；另可增加家庭的和諧度及家庭快樂指數。團隊期望將有關方法納入為產前護理的恆常程序，以幫助準爸爸戒煙。



介入小組會為準爸爸提供簡短戒煙建議、一周分量的尼古丁替代療法樣本，亦會轉介他們至本地戒煙服務。



港大醫學院研究發現，為吸煙準爸爸提供戒煙介入（如戒煙建議及輔助藥物），成功戒煙率能增9成。

港大團隊研究 盼納恆常程序

該學院助理教授(研究)陸子璉指，新生兒的出現是一個黃金機會讓準爸爸戒煙，亦是對小朋友最好的第一份禮物。他又引述研究指，若40歲或以前戒煙，將來患上與煙草有關的疾病風險可減近9成。團隊期望可將簡單戒煙介入納入產前護理的恆常程序，並期望尋找更多研究資金，為成功戒煙者在小朋友出世後3年後作隨訪。

▲ 港大團隊建議將措施引入產檢，並籲醫護主動識別準爸爸煙民。左為陸子璉，右為王文炳。(洗偉倫攝)

戒煙貼士

- 訂下戒煙日及告知身邊人
- 常備香口膠、清水及喉糖填塞口部
- 想吸煙時想方法拖延，如心中倒數
- 改變生活習慣及嘗試新活動

資料來源：港大團隊



港大醫學院一項研究發現，在產檢時為吸煙的準爸爸提供簡單的戒煙介入，可增戒煙成功率近9成。(洗偉倫攝)

HA PRCC in Advanced Gynaecological Nursing



Lifestyle issues: Reducing smoking and secondhand smoke exposure in women

Dr Kelvin MP Wang
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Associate Professor
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PRCC in Advanced Gynaecological Nursing
15 June 2022

JAMA
Internal Medicine

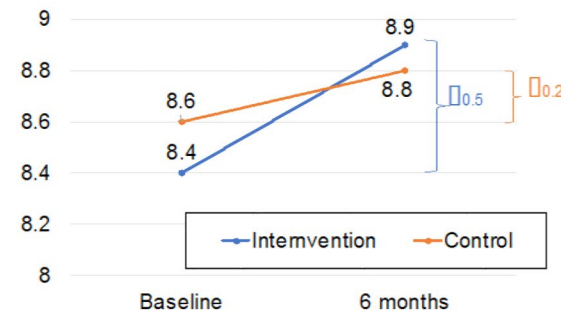
JAMA Internal Medicine | Original Investigation

Brief Advice, Nicotine Replacement Therapy Sampling, and Active Referral for Expectant Fathers Who Smoke Cigarettes A Randomized Clinical Trial

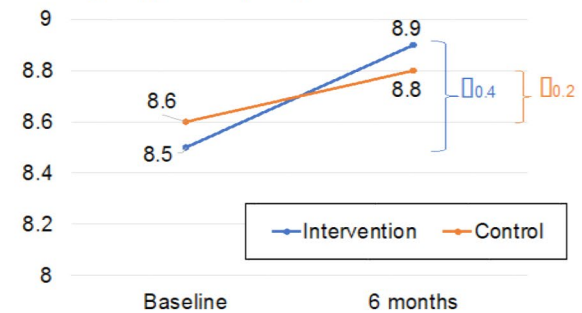
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10 The intervention group showed greater improvement in family harmony

Family harmony (0-10)



Family happiness (0-10)



Community-based smoking cessation program (CSCP)

- Goals

- To investigate new models of smoking cessation (SC) intervention
- To improve the effectiveness and coverage of SC services

- Key parts

- Proactive approach smokers for delivering opportunistic interventions
- Develop brief effective SC advices
- Integrate effective components of SC services
- Information communication technologies (ICTs) for personalized behavioral support



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THANK YOU !

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Pregnant women and smoking partners

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- Dr Leung Wing-cheong
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- Dr Cheung Ka Wang
- Dr Kwa Carina
- Dr Siong Kar-hung
- Dr Tang Kwok-keung
- Dr Lee Kai-Wan

HKU Smoking Cessation Research Team

HKU LKS Faculty of Medicine Outstanding Research Output 2022

