

Supplementary Data 1. Deidentified English translation of a baseline chatbot counseling session

Note: This transcript was translated from Cantonese/Chinese into English and deidentified for publication. The translation preserves the meaning and conversational characteristics of the original exchange. The participant’s nickname, the specific quit date, timestamps, account information, and contact details were removed or replaced. Emojis are retained as they appeared in the source transcript. The transcript is presented in full; no conversational exchanges were omitted.

Baseline assessment and pathway assignment

Assessment item	Recorded response
Average number of cigarettes smoked per smoking day	1–5 cigarettes (reported: 4)
Number of smoking days in the past 30 days	16–25 days (reported: 20)
Time to first cigarette after waking	>60 minutes
Readiness to quit	Within the next 6 months
Heaviness of Smoking Index	0; low nicotine dependence
Initial counselling pathway	5R’s-based motivational counselling

Translated conversation

No.	Speaker	English translation
1	Chatbot	Hello, I’m Sky, your AI smoking cessation counsellor. Thank you for the information you provided earlier. I now have a preliminary understanding of your smoking. Although you have not yet decided to quit immediately, seeking our help is the first step towards quitting. We can help you learn more about quitting smoking. Shall we begin?
2	Participant	Yes.

No.	Speaker	English translation
3	Chatbot	Very good, [Participant] 😊. Let's first look at your smoking habits and level of dependence 🧠. Based on the number of cigarettes you smoke each day 🚬 and the time to your first cigarette after waking ⌚, your level of nicotine dependence is low 📉.
4	Participant	OK.
5	Chatbot	Good. This time, let's talk about the benefits of quitting and whether smoking has any real benefits 🤔. What benefits do you think smoking has? 🤔🚫
6	Participant	Stress relief.
7	Chatbot	I understand 😊. Stress relief is indeed one of the common reasons why many people smoke ⌚. However, there are other, healthier ways to relieve stress instead of smoking 🙅🚫. For example, exercise 🏃, meditation 🧘, or simply taking deep breaths 🌬️ can effectively reduce stress without harming your body ❤️. Have you tried any other ways to relieve stress?
8	Participant	I have tried, but smoking can relieve stress for a short time.
9	Chatbot	I understand. Smoking may feel effective in the short term 📈. However, in the long term, smoking increases stress and anxiety 🗣️⚠️. In fact, stress levels usually fall after quitting, and the effect lasts longer ❤️. After you have quit for a while, you will feel more relaxed and less stressed 💪😊. Would you be willing to try other ways to relieve stress?
10	Participant	Yes.
11	Chatbot	Good 😊. Trying exercise 🏃 or meditation 🧘 to relieve stress may help you. Now, let's talk about the risks of smoking 📉. Do you know how smoking affects the body? 🗣️⚠️
12	Participant	It causes lung cancer and yellow teeth.
13	Chatbot	That's right 🚫. Smoking does increase the risk of lung cancer and yellow teeth 🗣️💔. In addition, smoking can make breathing difficult and reduce your physical fitness 🏃💪. What do you think about these risks? 🗣️
14	Participant	The breathing difficulty is quite noticeable.
15	Chatbot	I understand 😊. Breathing difficulty can have a substantial effect on your physical health 🏃. How do you think this affects your daily activities? 🏃🧠
16	Participant	I get out of breath more easily when exercising and cannot do aerobic exercise for very long.

No.	Speaker	English translation
17	Chatbot	I see that smoking has already affected your ability to exercise 🏃. This is an important concern 🧠. Quitting smoking can help improve this 💪😊. Apart from exercise, have you noticed any other risks of smoking in other areas of your life? 🗨️
18	Participant	Financial pressure, I suppose. Cigarettes are quite expensive.
19	Chatbot	I understand. The cost of smoking 💰 is indeed a major issue. Quitting can improve your health and save you a lot of money 💰. If you could save this money, what would you use it for? 😊
20	Participant	Shopping.
21	Chatbot	I understand 😊. Using the money you save for shopping 🛒 is a very good motivation 🙌! After quitting, you can use the money to buy something you have always wanted, and your health will also improve substantially ❤️. Let's continue discussing the benefits of quitting ☀️. After quitting, your breathing will become easier 🏃, your ability to exercise will improve 💪, and even your skin and teeth will be in much better condition ☀️. Do these benefits appeal to you?
22	Participant	They appeal to me 10 out of 10.
23	Chatbot	Very good 😊! Quitting brings many benefits 🙌. Speaking of quitting, have you thought about what might stop you from starting to quit? 🗨️🗨️
24	Participant	Peer influence, I suppose.
25	Chatbot	Thank you for sharing 😊. Influence from friends is indeed a very common challenge 🤝. When your friends also smoke, quitting may become more difficult 🗨️🗨️. However, you could consider discussing your goal with your friends ❤️ and see whether they can support you 🎉. Do you think this would help you? ☀️
26	Participant	It would help. I will try talking to my friends.
27	Chatbot	Very good 😊! Being willing to talk to your friends is already a big step forward 🙌. Remember, your health and well-being are the most important things ❤️. Speaking of quitting, have you tried to quit before? If so, what was your previous experience like? ☀️💡
28	Participant	I have tried quitting. I quit for nearly six months, but I was easily influenced and started smoking again.
29	Chatbot	Very good 😊! Quitting for six months was already a major achievement 🎉🙌. Could you tell me what strategies helped you remain abstinent for that long? ☀️💡
30	Participant	During that period, I did not contact friends who smoked.

No.	Speaker	English translation
31	Chatbot	I understand 😊! Avoiding contact with people who smoke is indeed a very good strategy 📅. This shows that you have strong self-control 💪. Remember, maintaining this determination will help you remain abstinent 🙌.
32	Participant	I understand.
33	Chatbot	👍 Good. Since we have now discussed these issues, let me ask you again: would you try to quit smoking within the next month? 📅🚫
34	Participant	Yes.
35	Chatbot	Great. Shall we begin developing a detailed quit plan for you? 😊💪📅
36	Participant	Yes.
37	Chatbot	I'm very pleased that you have decided to quit within the next month 🚫💪! Taking this step will greatly benefit your health and your life ❤️. You previously said that you smoked four cigarettes a day and had your first cigarette more than an hour after waking. Has your smoking amount changed recently? 📧😊
38	Participant	About the same.
39	Chatbot	Good. It seems that your smoking has remained at about the same level 📄🚫. Now, let's talk about your main motivation for quitting 😊. Could you tell me why you have decided that you want to quit within 30 days? ☀️
40	Participant	I want a healthier body and to reduce my spending.
41	Chatbot	Very good 😊❤️. Having a healthier body and reducing your spending are very important motivations ☀️. A healthier body will improve your quality of life, and the money saved can be used for other, more meaningful purposes 💎🌟. Apart from these, are there any other benefits of quitting that you are considering? 😊☀️
42	Participant	It would stop me from smelling of cigarette smoke, I suppose.
43	Chatbot	Good. That is a very clear motivation 😊! Not smelling of cigarette smoke will undoubtedly improve your personal image 🎉 and make the people around you feel more comfortable ❤️. Next, let's set a quit date together 📅. Which day would be suitable for you? Would it be a relaxed, low-stress day such as a weekend, or a day that is especially meaningful to you, such as your birthday or a family member's birthday 📅? Overall, it is best to avoid days when you are more likely to drink alcohol 🚫🍷. What do you think?
44	Participant	[Specific date stated by participant].

No.	Speaker	English translation
45	Chatbot	Good. We will use [the stated date] as your quit date 📅🚫. To prepare for this special day, we can use some pre-quitting strategies, such as removing all tobacco products and lighters, avoiding places where people smoke, and telling your family and friends about your decision to quit so that you can obtain their support 🤝🌟. Which strategies do you think would be particularly useful for you? 😊🌟
46	Participant	Throw away all my lighters.
47	Chatbot	Good. We can throw away all the lighters 🚫, which can effectively prevent you from having easy access to the tools used for smoking 🔪. Of course, there are other strategies, such as avoiding places where people smoke and telling other people about your decision to quit. These two approaches are also important for helping you quit successfully 🍷.
48	Participant	Good.
49	Chatbot	Good. Thank you for sharing 😊. Since you are determined to throw away your lighters, you can also try other approaches, such as avoiding places where people smoke and telling your family and friends about your decision 🤝🌟. Now, let's further explore what your greatest barrier to quitting might be 🧠. What do you think your greatest barrier will be? 🚀
50	Participant	Seeing my friends smoke will make me interested in smoking.
51	Chatbot	Good. We know that peer influence can easily make you want to smoke again 🍷👤. To address this challenge, you can try avoiding places where your friends smoke, or distracting yourself in other ways when your friends are smoking. For example, you can go for a walk 🚶, talk with other friends who do not smoke, or take part in other smoke-free activities 😊. Do you think these approaches would help you? 😊
52	Participant	They would also help.
53	Chatbot	Your baseline information indicates that your level of nicotine dependence is low 📉. Working on quitting now is a very good start! 😊
54	Participant	Good.
55	Chatbot	Good. Thank you for sharing 😊. Since smoking with friends is one of your challenges, we also need to consider the withdrawal symptoms that may occur when you quit 🧠. These commonly include coughing, irritability, and sleep problems, and usually last for about one to two weeks 🚶❤. Do you know any ways to cope with these symptoms? 😊
56	Participant	When I have free time, I will read or exercise to distract myself and avoid smoking.
57	Chatbot	Yes, these are very good approaches 😊💡. Exercise 🚶 and reading 📖 can effectively help distract you. However, if the withdrawal symptoms are more severe, you can also try other approaches, such as the 5Ds 🚀🌟.

No.	Speaker	English translation
58	Participant	What are the 5Ds?
59	Chatbot	The 5Ds can help you cope with different challenges during the quitting process 😊. The five Ds are Delay, Distract, Drink water, Deep breathing, and Discuss. 1. Delay: Delay until the craving passes. Although cravings are difficult to avoid, most cravings pass within three to five minutes. ⌚ Hold on a little longer and the craving will disappear! 2. Distract: Shift your attention away from thoughts of smoking, for example by playing a mobile game 🎮, exercising 🏃, or even going to the bathroom. Staying busy will help you forget the thought of smoking. 3. Drink water: Drinking water not only helps your body detoxify 💧, but also helps you get through the craving period. Drinking more water has many health benefits! 4. Deep breathing: Deep breathing is a useful technique that can help relieve stress while reducing the desire to smoke 🧘. Close your eyes 🙄, slowly inhale three times, and then exhale three times. Repeat this several times and you will feel relaxed! 5. Discuss: During the quitting process, talk with someone 🗣️, such as a friend 🧡, family member 👨, or another person in a smoking cessation community. Sharing your feelings and supporting one another will give you more motivation to persist ❤️! Do you think these approaches would help you? 😊 ✨
60	Participant	They would help a lot.
61	Chatbot	Very good 😊. Now, let's continue discussing how you can manage smoking pressure from friends or your surroundings 🗣️ 😊. When someone offers you a cigarette, you can try the following ways of refusing: 1. Politely refuse: Say directly and politely that you no longer smoke, for example, 'Please, don't you know that I'm quitting? I hope you can support me 😊.' 2. Change the subject: If you feel awkward, quickly change the subject and talk about something else that interests both of you, such as a good film you recently watched 🎬. 3. Leave the situation: If circumstances allow, briefly leave the situation where someone is offering you a cigarette, for example by going to the bathroom 🚽. Do you think these approaches are suitable for you? 🤖 👉
62	Participant	They are very suitable.

No.	Speaker	English translation
63	Chatbot	Good. I can see that you now have a very clear plan for quitting 😊! Finally, let's talk about how to prevent relapse 🧠. Sometimes, smoking one cigarette may easily make you feel discouraged and think that you have failed, leading to a full relapse. In fact, smoking one or two cigarettes occasionally does not mean that quitting has failed. As long as you notice it promptly and stop smoking again, your previous efforts will not be wasted 🎉. You could set small reward goals. For example, if you successfully avoid smoking for one week, celebrate with friends; if you avoid smoking for one month, buy yourself a gift 🎁. How would you reward yourself? 😊🎊
64	Participant	If I do not smoke for one month, I will use the money I would have spent on cigarettes to buy myself a gift.
65	Chatbot	Hello 😊! I can see that you have completed the initial quit-smoking consultation. Well done 🍊. If you have any questions or need help, you can ask me at any time. I will continue to support you during this period 🚫. Is there anything in particular that concerns you, or would you like to learn more about ways to cope with withdrawal symptoms? 🤔💬
66	Participant	No.
67	Chatbot	Good 😊. I'm very pleased to see that you are well prepared 🙌! If you have any questions or need help during this period, you can contact me at any time 🚫. In addition, if you would like more smoking cessation resources, remember that you can contact our counsellors 📞 or follow [the Quitline's Instagram account]. I wish you all the best. Keep going 🍊❤️!
68	Participant	Thank you.
69	Chatbot	Hello 😊! It is very good to see that you have completed the initial quit-smoking consultation 🍊. If you have any questions or need help during this period, you can ask me at any time 🚫. Is there anything in particular that concerns you, or would you like to learn more about ways to cope with withdrawal symptoms? 🤔💬
70	Participant	No.
71	Chatbot	Hello 😊! It is very good to see that you have completed the initial quit-smoking consultation 🍊. If you have any questions or need help during this period, you can ask me at any time 🚫. Would you like to learn more about ways to cope with difficulties during the quitting process? 🤔💬
72	Participant	No.
73	Chatbot	Hello 😊! It is very good to see that you have completed the initial quit-smoking consultation 🍊. During this period, if you have any questions about quitting or need help, you can contact me at any time 🚫. Do you have any particular questions or concerns? 🤔💬

Total conversation messages: 73.