Yale CANCER CENTER answers

WNPR Connecticut Public Radio

Hosts

Lynn Wilson MD
Vice Chairman and Professor
of Therapeutic Radiology

Francine Foss MD
Professor of Medical Oncology

Helping Patients Quit Smoking

Guest Expert:
Benjamin Toll, PhD

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Welcome to Yale Cancer Center Answers with doctors Francine Foss and Lynn Wilson. I am Bruce Barber. Dr. Foss is a Professor of Medical Oncology and Dermatology, specializing in the treatment of lymphomas. Dr. Wilson is a Professor of Therapeutic Radiology and an expert in the use of radiation to treat lung cancers and cutaneous lymphomas. If you would like to join the conversation, you can contact the doctors directly. The address is canceranswers@yale.edu and the phone number is 1-888-234-4YCC. This evening, Lynn welcomes Dr. Benjamin Toll. Dr. Toll is an Assistant Professor of Psychiatry at Yale School of Medicine and he joins us this evening for a conversation about smoking cessation. Here is Lynn Wilson.

Wilson Let's start off by having you describe for us what smoking cessation is.

Toll We typically think of quitting smoking as being a current smoker, a person who smokes 100 cigarettes or more that is currently smoking daily or perhaps some days per week. For that person trying to quit, generally the quitting treatment is through both drug treatment and counseling treatment, meaning that we do some kind of pharmacotherapy, plus counseling. Counseling is typically four to eight sessions spread over a month, to three months, and we hope for people to be quitting for a year plus.

Wilson And by pharmacotherapy you mean medications?

Toll Yes. Our treatment is completely evidence-based, meaning that we use drugs that are approved by the FDA. Those are the current first-line treatments, any of the NRTs, which is a kind of nicotine-type drug, so the patch, gum, or lozenge, or bupropion which has a trade name of Zyban, or the trade name Chantix for varenicline.

Wilson How did you become interested in this field? Obviously, it is extremely important but there are not too many specialists that do this.

Toll My path was not exactly a straight path. Truth be told, I was a junior in college and I was a psych major at Cornell. I did a psychology internship in Sydney Australia and it was a very fun time. The internship was through a drug and alcohol counseling clinic, and so I got interested in treating alcohol problems, which in my opinion are very interesting. Then when I got to my graduate training, the problem was that it is really tough for a graduate student to do alcohol research at my location because of IRB issues and it just seemed a lot more challenging. My mentors at that time were doing smoking research and said, you know Ben, I think this would be a lot more straightforward and still really interesting, and so I started to do smoking research, and by the way, I am still doing smoking and alcohol research, but my current focus is smoking research. I have got a current QuitLine study looking at providing counseling to risky drinkers that smoke to try to get them to improve their quit smoking outcomes.

Wilson How big of a problem is smoking in the United States and how many smokers are there currently?

Toll There are currently about 47 million smokers in this country. The statistic in 1965 was about 42%

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or so of this country smoked. That rate has fallen to around 21%. So that is good. The problem is that in the past few years, the rate has plateaued. The largest survey showed in 2004 a rate of 20.9%, that rate in 2008 was 20.6%. So the problem is still currently there and it is possible that we are getting to a very tough population of smokers for whom it is tougher to quit.

Wilson What is the average age of somebody when they begin to smoke?

Toll It is hard to give a specific age. Typically, we talk about a range. The statistic that most people quote is from the age of 12 to 17, about 3500 youths' smoke their first cigarette, and about 850 become daily smokers. Then what drives that rate, or what is correlated with smoking for youth, typically, unfortunately, is going to be low SES, a peer group who smokes or perhaps brothers and sisters, parents and guardians smoking, and certainly access is a big issue. So if you are in an urban area and there are a lot of package stores that you live right near. There are a number of reasons that drive you to smoking.

Wilson We hear a lot about smoking being related to lung cancer, but what other cancers are related to smoking and tell us a little bit about the diseases that are noncancerous that smoking can cause or induce.

Toll We know that smoking is related to at least 15 types of cancers including sinuses, stomach, bladder, larynx, lip, and pancreas, but the important thing for cancer patients, sort of what we say to cancer patients, is that it is very important to quit smoking; it is going to improve the treatment effectiveness of cancer treatment, and that means cancer surgery, chemotherapy or radiation therapy, it is going to cut down risk for future second primary tumors and it is going to improve longevity, so those are a bunch of very important reasons for cancer patients to quit smoking. To get to the second part of your question, smoking is also correlated with stroke, cardiac problems, chronic bronchitis, emphysema, and ulcers.

Wilson In terms of your experience, in your research and expertise, when someone has been a long-time smoker, they are smoking a pack or two a day, what is the general success rate for someone who is ready to try their hardest to stop smoking? If you had 100 people that signed up for a program, generally, what is the percentage of those 100 people that perhaps a year later may no longer be smoking?

Toll It depends on the treatment intervention. Keep in mind, for me treating smokers, we always want to pair drug therapy with counseling therapy. There are certain people that do not want to do one or the other. Some people just want drugs and some people just want counseling, but we strongly encourage people to do both. Quit rates are highest when doing both. Typically, we give patch plus gum or patch plus lozenge, or Chantix. They are the two primary drug treatments that I like to use, and a counseling protocol for both is around two to three months, and that is weekly counseling. It is typically 30 to 45 minutes of counseling. In the counseling we deal with coping

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skills for cravings, trying to increase pleasant activities, talking about pros and cons of quitting, and talking about peer support on these types of coping skills. So patch plus lozenge will give you a quit rate at eight weeks about 50%, at six months about 40%. With Chantix, we are looking at a 12-week quit rate of about 44% and they report 12-month quit rates of around 22% or so.

Wilson I am sure something our listeners are interested in is how they can contact your service if they are interested in smoking cessation?

Toll Right now we are launching a quit smoking service through Smilow Cancer Hospital. We are treating Smilow patients and our goal is to increase the program to be open to the general public. At this time, it is including Smilow Cancer Hospital patients and in the future we will be expanding to the general public.

Wilson That is terrific! What are some of the biggest obstacles you face in trying to get folks to quit smoking?

Toll The truth is, people love smoking. So our primary obstacle is usually motivation. People have strong, negative, and positive feelings about smoking. Every smoker that you talk to says, "I know I should quit." The problem is that not everyone says "I want to quit" or "I can quit." So increasing motivation and confidence is a big issue. Why? Smoking is very satisfying. People are smoking because it feels great. It is a very strong drug. It is a very strong habit. People that have smoked for 20 years, a pack per day, have literally been smoking millions of times. It is a strong habit and why is it so satisfying? The tobacco companies, there is a lot of evidence that shows that the companies have chemically altered their product to make is more satisfying, to make it a stronger drug. Our primary problem is generally motivation.

Wilson What are some of the factors that you have identified that may suggest someone might have an easier time with cessation? Is it the number of cigarettes they are currently smoking or the number of years they have been smoking, their family support system? What sort of factors are you thinking about that when someone becomes your patient you might say, this person might be someone that I might have a better chance of helping because of factors x, y, z.

Toll Typically we think of more dependent patients as being tougher. We measure dependence through two primary things. One is the quantity of smoking. A greater quantity is generally more dependent, and two is time to their first cigarette. The quicker that you light up, the more dependent you are. If a person tells me that they smoke within five minutes of waking up, and there are a two-pack-per-day smoker, I know right away that they are going to be a tougher patient and that they are going to need more care, perhaps, longer pharmacotherapy, longer drug treatment, perhaps additional or longer counseling.

Wilson We are going to take a short break for a medical minute. Please stay tuned to learn more information about smoking cessation with Dr. Benjamin Toll.

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Medical Minute *The American Cancer Society estimates that in 2010, over 2,000 people will be diagnosed with colorectal cancer in Connecticut alone, and nearly 150,000 in the US. Early detection is the key, and when detected early, colorectal cancer is easily treated and highly curable. Men and women over the age of 50 should have regular colonoscopies to screen for the disease. Patients with colorectal cancer have more hope than ever before. Each day, more patients are surviving the disease due to increased access to advanced therapies and specialized care. Clinical trials are currently under way at federally designated comprehensive cancer centers, like the one at Yale, to test innovative new treatments for colorectal cancer. New options include a Chinese herbal medicine being used in combination with chemotherapy to reduce side effects of treatment and help cancer drugs work more effectively. This has been a medical minute and more information is available at YaleCancerCenter.org. You are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.*

Wilson Welcome back to Yale Cancer Center Answers. This is Dr. Lynn Wilson. I am joined this evening by Dr. Benjamin Toll and we are discussing smoking cessation. Ben, the first part of the show was extremely interesting and I have got some additional questions for you. How do you think the image of smoking has changed over the years? You mentioned a little bit about cigarette manufacturers, things they were actually doing to the cigarettes, marketing and advertising, talk to our listeners about these factors, how have things changed? Obviously the tobacco industry has a very strong advertising and marketing campaign going.

Toll In this country, it used to be that smoking was acceptable, in the first half of the 1900s. It was not until the 1940s and 1950s that there were studies that started to show that smoking is a cause of lung cancer, but the scales did not really tip, in my opinion, until about 1965, and that is when the big Surgeon General's Report came out that said very clearly that smoking is strongly related to lung cancer, and all these other things too, and that was when the scales really started to tip towards people seeing smoking as being negative. If you fast forward until the late 1990s until now, smoking for better or worse is viewed as a bit more stigmatized. If you are in California and you are doing surveys, people will literally lie to you and tell you that they do not smoke because it is so stigmatized. It is getting to the point that our country is turning very smoke-free and smoking is less of a positive image now. It used to be that you had the Marlboro Man, big tough guy that was a smoker and was really cool. More recently, there have been reports that Marlboro Man got cancer and it is very negative, and there is a lot less advertising about smoking. There is currently no television advertising. There is still print advertising.

Wilson And is it not allowed on television?

Toll It is not allowed, yes.

Wilson I see.

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Toll It is currently banned. A big change very recently is that there are now going to be graphic warnings on packs. It used to be, starting in 1965, there were these small text warnings that were very clear and said things like, smoking causes lung cancer. Now there are going to be big graphic warnings that show teeth that are hollowed out, with gums that are blackened, really graphic gruesome things, and they are pretty large too. A big part of your pack will show a graphic warning that says something like, "Smoking causes mouth decay", and in my opinion, that is a really positive step. I have colleagues in Canada that have shown that these graphic warnings are certainly helpful for getting people to consider quitting and possibly to get people to try quitting. My research about message framing shows that it may be good to test also a gain-framed approach to warnings, meaning that we have tested counseling treatments comparing gain- and loss-framed statements. A gain-framed statement is, if you quit smoking, you will save money. A loss-framed statement is, if you continue smoking, you will lose money. We are trying to enhance the positive aspects of quitting smoking instead of trying to highlight the negative aspects of continued smoking. There is currently interest in people testing pack warnings that have positively framed text. So, if you quit smoking, your risk of lung cancer is greatly decreased, let's say.

Wilson What is prospect theory?

Toll A prospect theory is a transdisciplinary theory that was created by two psychologists, Kahneman and Tversky. Dan Kahneman won the Nobel Prize in 2002. It is a theory that states that if you highlight the gains, or positive aspects, of an issue, people stay away from risk, and if you highlight the cost or losses, people try to seek risk. Now what does that mean? Let us take gambling. If you go up to Foxwoods, a Connecticut casino, and you are gambling on say blackjack, and you are gambling and you are losing, and you have lost $1,000. Now you are down that $1,000 and you are going to start making risky bets, trying to win that money back. If you are playing blackjack and you have won $1,000 and you are doing well, you are going to make more conservative bets to try to keep that money. Prospect theory is a very broad theory that spans things like gambling, politics, and health. What we have shown for smoking, quitting smoking is a prevention behavior, meaning that if you quit smoking, it strongly cuts down your risk for problems like cancer, stroke, cardiac problems, and chronic bronchitis. Prospect theory would predict that gain-framed messages are more likely to promote quitting smoking, and what we found in two clinical trials so far is that that is true.

Wilson You had mentioned QuitLines, can you give us more details about your new system of smoking cessation?

Toll QuitLines are a great system of helping people quit in our country. In the early 1990s, around 1992, the first QuitLine launched in California. After that it started to gain traction. In 2004, a National Association came about for QuitLines and currently across the whole country, there are free phone numbers that you can call to help you quit smoking. And so what are QuitLines? You call up and you will be engaged in a brief interview where they will give you counseling. Typically, it is one to perhaps eight sessions of counseling and it is by phone. In many states,

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including this state, certain people can get free medications. I have worked very closely with the New York State QuitLine. In that QuitLine, the typical treatment regimen is that a person calls up and there is a 10-min counseling interview where they ask you questions and they give you counseling through the interview and if you are medically eligible, they will send you a free two-week starter pack of drug therapy, patches gums, or lozenges.

Wilson And if someone does require medications for cessation, do insurance companies typically pay for this?

Toll It is really company by company. So the short answer is that yes, a bunch of them do. It is not always covered though, and unfortunately, the patient needs to call their company to find out.

Wilson You have developed a very specific expertise in this area Ben, tell us about some of the studies that you have done, specifically about some of your research and some of the findings that you have made.

Toll I started mentioning our message framing work. What we are really excited about is a few things. Our first large study through the QuitLine was this message framing study, where we compared standard counseling plus a two-week starter pack of drug therapy to gain-framed counseling, plus the starter pack of drug therapy, and what we did was, we took the actual print matter from the New York State QuitLine that was partially loss-framed and we gain-framed it, meaning that there was a black lung in their brochure, I took that out. They said that smoking causes problems like lung cancer, cardiac problems, etc. I changed that language to say quitting smoking will prevent problems like lung cancer and cardiac problems, etc. Then what we did was trained their counselors to provide a gain-framed counseling, meaning that instead of talking about the problems caused by continued smoking, their statements were about the kinds of benefits from quitting smoking. So, a caller calls up and says that they want to quit smoking. Counselor then says, what benefits do you expect to get from quitting smoking? The caller might say, I think that I am going to save money, I am going to not get cancer and I will breathe easier. Counselor then says, great, it sounds like you feel that you are going to not get cancer, that you will save money, and that you will breathe easier. Throughout the interview a bunch of these gain-framed statements were brought back to the patient, personalized gain-framed statements and canned gain-framed statements. What we showed empirically was two things. Importantly, in QuitLine research, there was, until now, no group trying to train QuitLine counselors to a new counseling treatment. There have been a lot of studies about varying the amount of medication, the length of call, amount of calls, no one has trained counselors to counseling content, and that is what we did. We are the first group to prove empirically that you can both train and test new counseling treatments through QuitLines, and that is one thing that we are quite excited about. I mentioned that the gain-framed group showed an improvement in quit rates too, and to get to our new study, we are currently providing a study for QuitLine callers who drink at risky levels, meaning that if you call up and we give you a brief assessment about your drinking and you're drinking at hazardous levels, we are currently testing standard smoking counseling to a drinking counseling kind of intervention,

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specifically trying to improve their quit smoking outcomes. We are asking callers to cut down to quit their drinking, to help them quit smoking.

Dr. Benjamin Toll is an Assistant Professor of Psychiatry at Yale School of Medicine. If you have questions or would like to share your comments, visit yalecancercenter.org where you can also subscribe to our podcast and find written transcripts of past programs. I am Bruce Barber and you are listening to the WNPR Health Forum on the Connecticut Public Broadcasting Network.