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Tobacco Use and Correlates: A Comparison of Floridians Living With and Without Disabilities

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Many of the questions contained in the proxy survey were adapted from the Behavioral Risk Factor Surveillance System, an annual telephone survey conducted in all U.S. states and territories and administered by the Centers for Disease Control and Prevention and state health departments. More information is available at www.cdc.gov/brfss.

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Background

Several efforts were put into place in the late 1990s, like the development of comprehensive tobacco prevention programs, to focus on decreasing the prevalence of tobacco use in the United States.¹ These programs were developed to help reduce the number of individuals who were using tobacco as well as prevent new people from experimenting with tobacco. Initially, there was a decline in the prevalence of tobacco use in the United States which may have been impacted by the comprehensive tobacco programs. However, many of these programs have lost their funding and have been reduced or eliminated. From 2007 to 2009 the Centers for Disease Control and Prevention (CDC) noted that the prevalence for adult cigarette use remained the same for both years.² Despite the fact that the rates have declined significantly and that people are aware of the problems associated with using tobacco many still place themselves at risk by using tobacco.^{3,4}

Although there have been a multitude of efforts to prevent and reduce the number of individuals who use tobacco it is still major causes of preventable death globally.^{1,5,6,7} Furthermore, it is estimated that nearly 443,000 deaths in the United States are linked to tobacco use which costs over 96 billion dollars in productivity per year.^{1,7,8} In 2008 the prevalence of cigarette smoking in the United States was nearly 21%. However, many adults and youth reported using other types of tobacco products and exposure to second-hand smoke.¹ These numbers represent a large portion of the population placing themselves at risk for premature death from tobacco related diseases.

In the state of Florida, the prevalence for cigarette smoking was 17.5% and Florida is ranked 18th among the states for cigarette use.¹ As previously found in the literature, Florida is not immune to deaths linked to tobacco use. Floridians 35 years old and over had a smoking-attributable mortality rate of 258.8/100,000 from 2000-2004.¹

Tobacco use and exposure is not limited to only the general population but also people with other health concerns. People with disabilities (PWD) sometimes report higher use of tobacco than the general population. For instance, in a national study using data from the Behavior Risk Factor Surveillance System (BRFSS) determined that 12% more PWD reported smoking at least 100 cigarettes in their lifetime compared to non-disabled people.⁹ Over 56% of PWD compared to nearly 44% on non-disabled people reported smoking currently.⁹ People without disabilities had a lower prevalence for current smoking than PWD, 56% compared to 44%, respectively. However, people without disabilities were less likely to attempt quitting than PWD which contradicts other reports.⁹

Florida has also enforced several laws to help prevent second-hand smoke in many public places but these laws do not extend to 24% of homes where people are exposed to environmental tobacco smoke.¹ Limited information on tobacco use and exposure in PWD has been reported. Some reports suggests that PWD are more likely to use tobacco, unlikely to quit, and are not screened by their health care providers for tobacco use.^{10,11,12,13,14,15} PWD 65 years and older that report using tobacco have also reported inadequate mental and physical functioning compared to persons without disabilities.^{10,16} Armour and colleagues analyzed national data from the 2004 BRFSS to determine the prevalence of cigarette smoking among PWD in the US.¹⁷ This study was one of the first

to examine the prevalence of PWD who smoke for each state. The findings indicated that over 50% of PWD smoked and 40% were advised to quit but were not provide tobacco cessation information.¹⁷ In the state of Florida, PWD had an unadjusted smoking prevalence of 23.9% which was higher than many states.¹⁷

The health effects from tobacco use have been well established for many populations. Likewise, information exists on the impact of second and third-hand smoke on the general population. Second hand smoke has been linked to many chronic health problems like respiratory diseases and cancer. Several states, including Florida, have adopted smoking bans in many public places to help decrease the health impacts from second-hand smoke. PWD are at greater risk from chronic illnesses related to second-hand smoke because their health may have been previously compromised.¹⁸ Laws like the American Disabilities Act (ADA) Title III provides provisions for PWD to fully enjoy public places, therefore, the laws preventing second-hand smoke will help to increase their abilities to enjoy a variety of environments.¹⁸ However, if they live in a home where people smoke these laws do not protect them from second or third-hand smoke in that environment.

Little information exists on the prevalence smoking, second-hand smoke, and exposure to other types of tobacco for PWD that live in Florida. Therefore, this report examines the association with tobacco use and exposure comparing PWD to persons without disabilities in the state.

Methods

This report on smoking behaviors and exposure to second-hand smoke in Florida utilizes data from the 2007, 2008, and 2009 Florida Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is an annual telephone survey which collects demographic, health behavior, health outcome, and health care access data from randomly dialed non-institutionalized adults age 18 and over in the United States and its territories. It consists of a core section of questions administered nationally and separate modules that states may choose to use.^{19,20} States may also design their own questions to include on the BRFSS. The survey is administered through state and territorial health agencies with assistance from the CDC. The data are weighted so respondents represent the population of their state based on gender, race/ethnicity, and age, making results generalizable to the entire state.

In 2007, Florida had 39,549 respondents to the annual BRFSS, of which 38,354 answered the questions used to identify persons with disability. These questions are: “Are you limited in any way in any activities because of physical, mental, or emotional problems?” and “Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?” Individuals that answered yes to either question were considered to have a disability. The number of people who answered yes to either question in 2007 was 10,504.

In 2008, Florida had 10,874 respondents to the BRFSS, of which 10,831 answered the disability related questions. Of these 10,831 survey respondents, 3,203 were identified as a person with a disability.

In 2009, Florida had 12,055 respondents, of which 11,709 answered the disability related questions. Of those that answered the questions, 3,374 were identified as a person with a disability.

All data reported here are weighted to reflect the entire population of the state. Analyses were conducted using SAS version 9.2.

Results

Smoking

In the years 2007, 2008, and 2009 the proportion of individuals that said they had smoked 100 cigarettes in their lifetime (classified as smokers) remained fairly constant (Table 1). For all three years just under 60% of PWD reported having smoked 100 cigarettes in their lifetime, while only about 40% of people without a disability reported having smoked 100 cigarettes in their lifetime. Among survey respondents that indicated that they had smoked 100 cigarettes in their lifetime, there was little difference between PWD and Non-PWD in terms of current smoking habits. Across all three years, and for both PWD and Non-PWD, roughly 30% report smoking daily, 10% report smoking some days, and 60% report not currently smoking at all. Additionally across all three years the proportion of PWD who were smokers that indicated that they had tried to quit smoking in the past 12 months was a little over 50%, while the proportion of Non-PWD reported trying to quit has hovered around 60%.

Second hand smoke

In 2007, the Florida BRFSS included optional modules that asked respondents approximately how many hours during the last 7 days they spent in a room where someone had been smoking, and if they had bought or given someone under the age of 18 tobacco products in the past 12 months (Table 2). PWD spent more time in a room with smoke on average than people without a disability. 74% of PWD reported spending zero hours in a room with someone smoking, compared to 78% of people without a disability. Additionally, only 6% of PWD reported spending 11 hours or more in a room where someone had been smoking, while almost twice that many PWD (approx. 12%) reported spending 11 hours or more. Only about 1% of PWD and Non-PWD reported buying or giving someone under age 18 tobacco products in the past 12 months.

Other smoking exposures and behaviors

In 2008, the Florida BRFSS included optional modules that asked respondents about how old they were when they began smoking and on how many of the past seven days anyone smoked in their home while they were there (Table 3). The mean age of smoking initiation for both PWD and Non-PWD were similar (17.6 for PWD and 18.5 for Non-PWD). Additionally, the proportion of individuals reporting smoking in their home was similar between PWD and Non-PWD, with over 80% of both groups reporting no smoking.

In 2009, the Florida BRFSS included four additional tobacco use questions on top of the core questions asked by all states (Table 4). These questions were: “Have you ever smoked a cigar, even one or two puffs?”, “Do you now smoke cigars every day, some days, or not at all?”, “On how many of the past 7 days did anyone smoke cigarettes, cigars, or pipes in your home while you were there?”, and for individuals that identified themselves as smokers, they were asked if they would like the phone number for a free tobacco quit line. About 40% of both PWD and Non-PWD said that they had ever smoked a cigar. Of those that had ever smoked a cigar, just under 90% of both groups said that they do not currently smoke cigars. When asked about smoking in the home, almost 90% of people without disability indicated that it had occurred on zero of the past 7 days, while only about 80% of PWD said the same. Finally, PWD indicated an interest in the free tobacco quit line (34%) than people without disability (27%).

Discussion

The trends reported in this study confirm earlier findings that suggest that PWD have a higher prevalence of smoking than the persons without disabilities.^{9,17} However, this report does not confirm that more PWD try to quit smoking more often than their non-PWD counterparts.⁹ The study findings suggest that more work needs to be done to protect PWD from second-hand smoke. More PWD reported spending more time in their homes with smokers. This finding clearly indicates that public health efforts should also focus on people who live with PWD to help them understand the impact that smoking has on PWD’s health. The laws that have passed to protect the general public from second-hand smoke is a good starting place but more work needs to be done in this area to ensure that PWD have the same rights and privileges to live in smoke-free environments.

Tobacco prevention is an important place to start with many populations. The PWD population should not be exempt from tobacco prevention programs. The study found that many PWD and non-PWD first began smoking at between 17 and 18 years old. This finding is contradictory to earlier reports that have suggested that smoking initiation and daily use is associated with smokers who start at a younger age.^{21,22} This study also confirmed that some health care providers are advising patients with disabilities to quit smoking but are not providing proper tobacco cessation efforts to help them have successful quit attempts.²³

In conclusion, the findings from this report suggest that PWD should be considered when planning comprehensive tobacco prevention and cessation programs. Health care providers also need to be aware that just asking PWD about tobacco use and exposure may not be enough to help prevent premature morbidity and mortality from co-morbid smoking related diseases. Therefore, more efforts to decrease the prevalence and exposure to PWD as well as the general population from tobacco related diseases needs to be explored.

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Disability and Smoking in Florida: Behavioral Risk Factor Surveillance System (BRFSS) 2007, 2008, 2009.

Note: Percentage weighted to the Florida Population, unless otherwise stated

Table 1: Tobacco use over time

		2007		2008		2009	
		Nation	Florida	Nation	Florida	Nation	Florida
1. Have you smoked at least 100 cigarettes in your entire life?							
³ People with disability	Yes	56.3	58.8	54.5	57.1	55.8	59.4
	No	43.7	41.2	45.5	42.9	44.2	40.6
People without disability	Yes	40.3	42.4	39.5	40.1	39.4	40.8
	No	59.7	57.6	60.5	59.9	60.6	59.2
2. Do you now smoke cigarettes every day, some days, or not at all? ¹							
³ People with disability	Every day	33.8	32.1	31.9	30.3	32.8	32.9
	Some days	9.9	10.1	10.8	9.6	10.9	7.2
	Not at all	56.3	57.8	57.3	60.1	56.3	59.9
People without disability	Every day	31.6	30.5	30.6	29.1	28.7	27.1
	Some days	12.3	11.4	12.5	11.2	12.7	10.7
	Not at all	55.6	58.1	56.9	59.7	58.6	62.2
3. During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit? ²							
³ People with disability	Yes	60.1	58.7	62.4	57.5	62.6	62.6
	No	39.9	41.3	37.6	42.5	37.4	37.4
People without disability	Yes	57.0	51.2	56.7	52.2	58.5	56.4
	No	43.0	48.8	43.3	47.8	41.5	43.6

¹ Denominator only includes individuals that answered "Yes" to question 1.

² Denominator only includes individuals that answered "Every day" or "Some days" to question 2.

³ Disability defined as having answered "yes" to either being limited in any activities because of physical, mental, or emotional problems; or, having any health problem that requires the use of special equipment.

Table 2: Other tobacco questions, Florida 2007

During the past 7 days, approximately how many hours (total in a week) did you spend in a room (either work or home) where someone has been smoking? ¹		
	People with disability³	People without disability
Zero	73.8	77.6
0≤1	3.7	4.0
1-2	4.4	5.4
3-5	3.6	4.1
6-10	2.9	2.8
11or more	11.5	6.2
Over the past 12 months, did you ever buy or give someone under the age of 18, cigarettes, chewing tobacco, or any other tobacco products? ²		
	People with disability³	People without disability
Yes	1.0	0.7
No	99.0	99.3

¹ Not asked of Orange County Residents.

² Not asked of Orange, Clay, Duval, or Monroe county residents.

³ Disability defined as having answered “yes” to either being limited in any activities because of physical, mental, or emotional problems; or, having any health problem that requires

Table 3: Other tobacco questions, Florida in 2008

About how old were you when you first started smoking cigarettes fairly regularly? ¹		
	People with disability	People without disability
Mean age	17.6	18.5
On how many of the past 7 days, did anyone smoke in your home while you were there? ¹		
	People with disability	People without disability
1	3.7	3.4
2	2.1	2.1
3-6	1.2	1.4
7	10.8	8.1
I was not home in the past 7 days	0.1	0.4
None	82.1	85.3

¹ Denominator only includes individuals that answered “yes” to question 1 (Have you smoked at least 100 cigarettes in your life?) and “Every day” or “Some days” to question 2 (Do you now smoke cigarettes every day, some days, or not at all?)

² Disability defined as having answered “yes” to either being limited in any activities because of physical, mental, or emotional problems; or, having any health problem that requires the use of special equipment.

Table 4: Other tobacco questions, Florida 2009

1. Have you ever smoked a cigar, even one or two puffs?		
	People with disability	People without disability
Yes	43.0	39.3
No	57.0	60.7
2. Do you now smoke cigars every day, some days, or not at all? ¹		
	People with disability	People without disability
Every day	2.4	1.9
Some days	9.2	12.1
Not at all	88.4	86.0
3. On how many of the past 7 days, did anyone smoke cigarettes, cigars, or pipes in your home while you were there?		
	People with disability	People without disability
0	80.6	88.9
1-6	4.7	3.8
7	14.3	7.1
Not home in past 7 days	0.0	0.2
4. Earlier you indicated that you had smoked cigarettes on some or all of the past 30 days. If you would be interested in calling a free tobacco quitline service to get more information and resources to help you quit smoking, I can provide you with a toll-free number. Would you like me to give you this number? ²		
	People with disability	People without disability
Yes	33.8	27.3
No	66.3	72.7

¹ Denominator only includes individuals that answered “yes” to question “Have you smoked at least 100 cigarettes in your life?”.

² Denominator only includes individuals that answered “Every day” or “Some days” to question 2 (Do you now smoke cigarettes every day, some days, or not at all?)

³ Disability defined as having answered “yes” to either being limited in any activities because of physical, mental, or emotional problems; or, having any health problem that requires the use of special equipment.