

Effective Patient-Provider Communication and Perceived Quality of Care among Current Smokers

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Introduction

- **Smoking tobacco** leads all cause of bodily disease and reduces the recovery rate for all diagnosed cancer patients.¹
 - It also is the number one preventable cause of death.^{1,2}
 - Although the percentage of smokers has decreased in the United States, 480,000 still die every year from cigarette related diseases.³
- Despite medical and public health advancement, such as screening and treatment of tobacco use, too often, the quality of care provided to patients is substandard.⁶
 - **Poor quality** care leads to sicker patients, more disabilities, higher costs, and lower confidence in the health care industry.
- Quality healthcare, considered the assessment and provision of effective and safe care, reflected in a culture of excellence, resulting in the attainment of optimal or desired health, improves patient trust and health outcomes.
- The Institute of Medicine defines quality as having markers of:
 - Effectiveness
 - Efficiency
 - Equity
 - **Patient centeredness**
 - Safety
 - Timeliness⁶

Effective communication is an important factor in patient-centered care.

- Patients who receive **effective communication** from their doctors are more likely to:
 - Acknowledge health problems,
 - Understand their treatment options,
 - Modify their behaviors, and
 - Follow medication schedules.⁵

Thus, implementation of effective patient-provider communication as a factor for effective quality of healthcare can effect smoking cessation efforts.

Methods

- Design**
 - Cross sectional analysis using patient survey data collected between 2017 - 2019 Health Information National Trends Survey (HINTS), a public dataset by the National Cancer Institute
- Participants**
 - This study analyzed data of more than 1,481 adults, ages 18 or greater
 - Surveys administered in two samples by mail and web based on stratified probability sample of U.S. population
 - Smoker were defined by having smoked over 100 cigarettes in their life time
- Variables**
 - The **predictor variables** were age, race, gender, sexual orientation, education, income, smoking status, and patient-provider communication.
 - The **outcome variable** was indication of perceived quality of care among smokers.
- Analysis**
 - **Chi-square analysis** determined differences between smoker who reported excellent quality healthcare vs unsatisfactory healthcare quality fall all effective patient provider communication markers.
 - **Logistic regression** determined the relationship between quality of healthcare and patient-provider communication variables after adjusting for covariates.



Measure of patient-provider communication: **In the past 12 months, how often did a doctor, nurse, or other health professional...**

- Give you a chance to ask all the health-related questions you had?
- Give the attention you needed to your feelings and emotions?
- Involved you in decision making about your health as much as you wanted?
- Made sure you understood the things you need to do to take care of your health?
- Explain things in a way you could understand?
- Spend enough time with you?
- Help you deal with feelings of uncertainty about your health or health care?

Figure 1. HINTS collects nationally representative data routinely about the American public's use of cancer-related information.

Results

- The sample included 1,481 participants, who identified as current smokers.

Figure 2. Gender

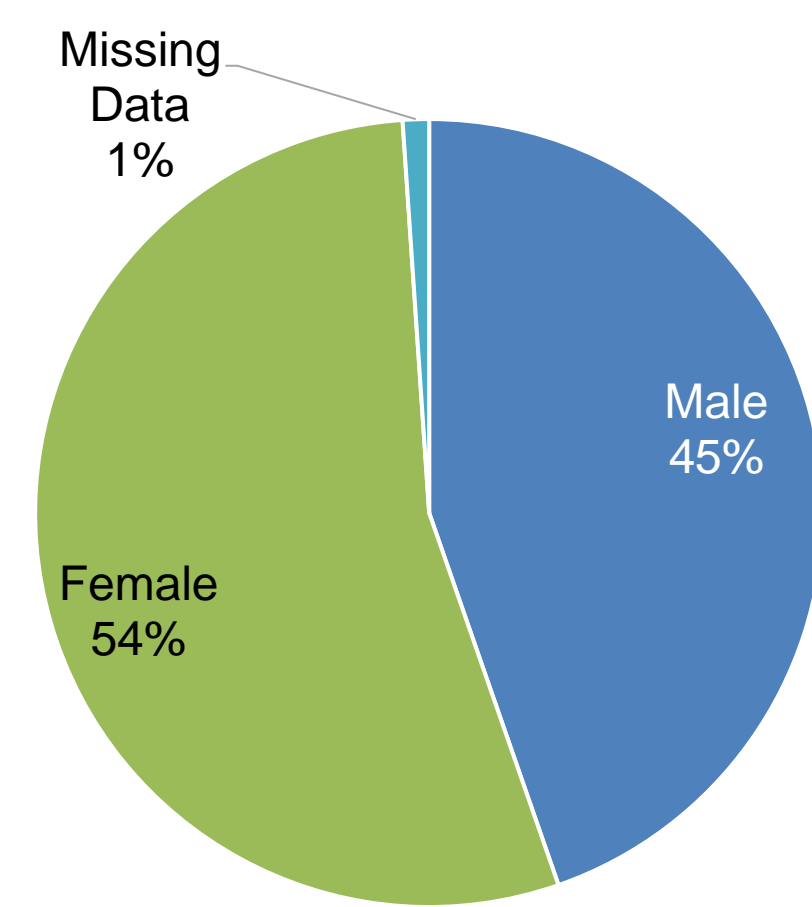


Figure 3. Race

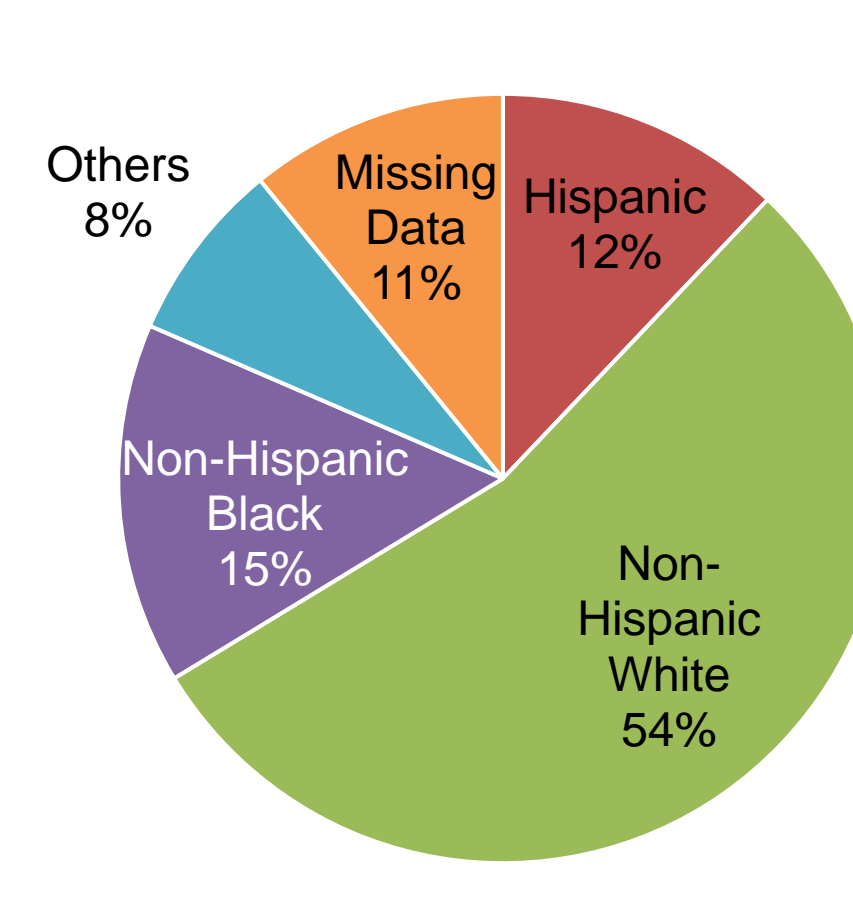


Figure 4. Sexual Orientation

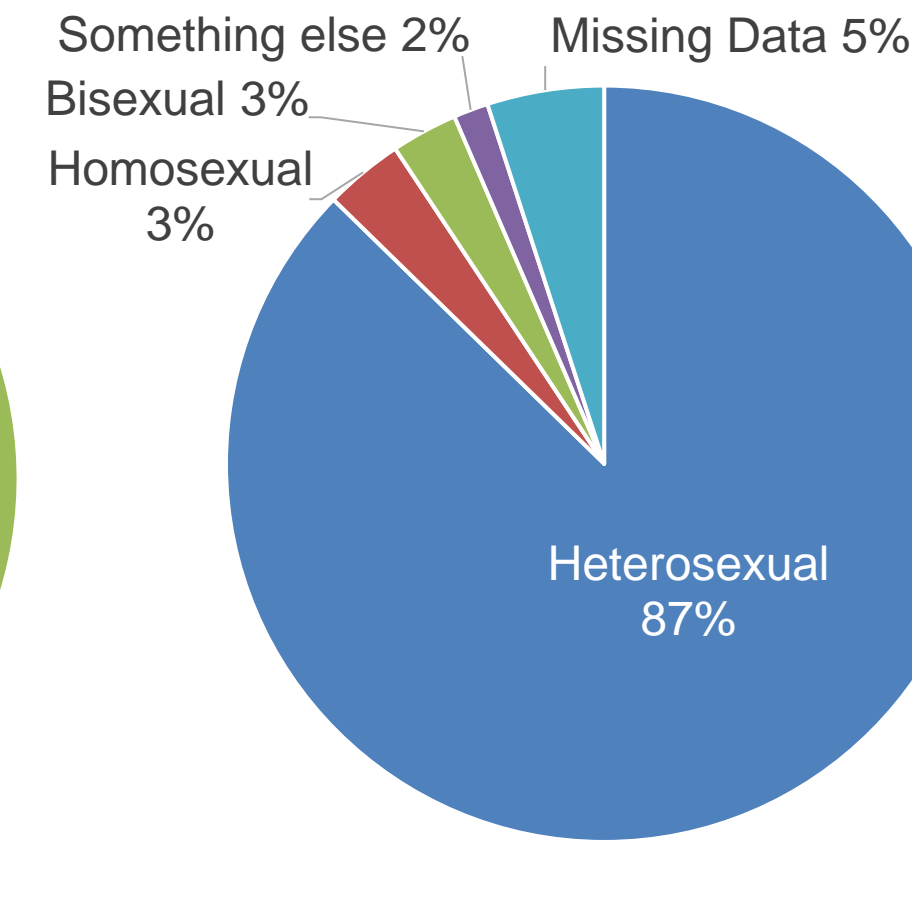


Figure 5. Income

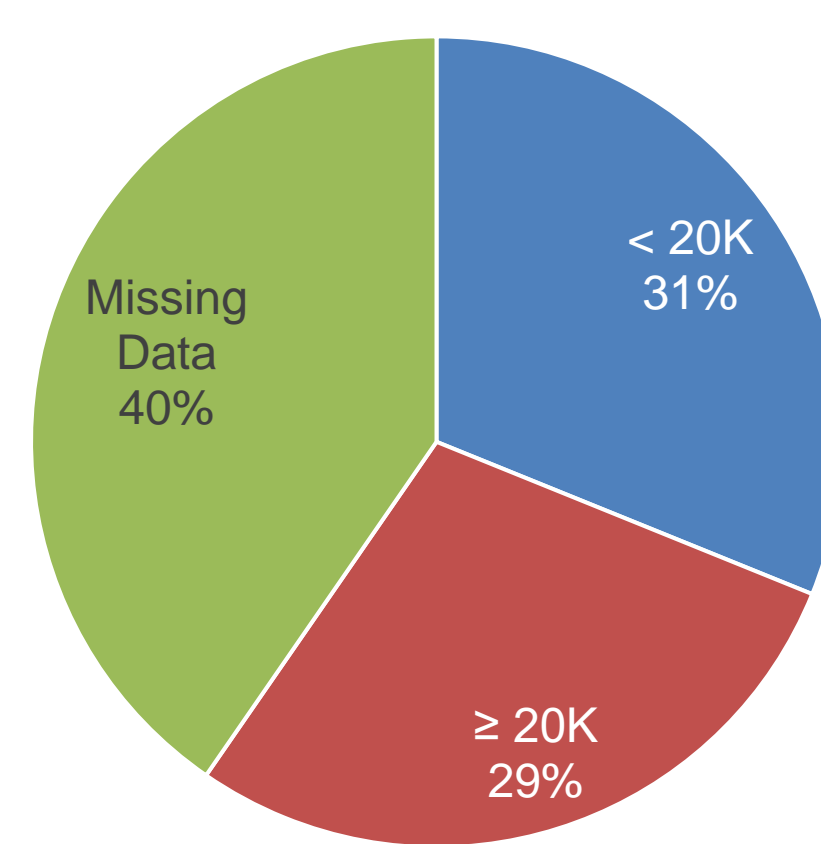


Figure 6. Education

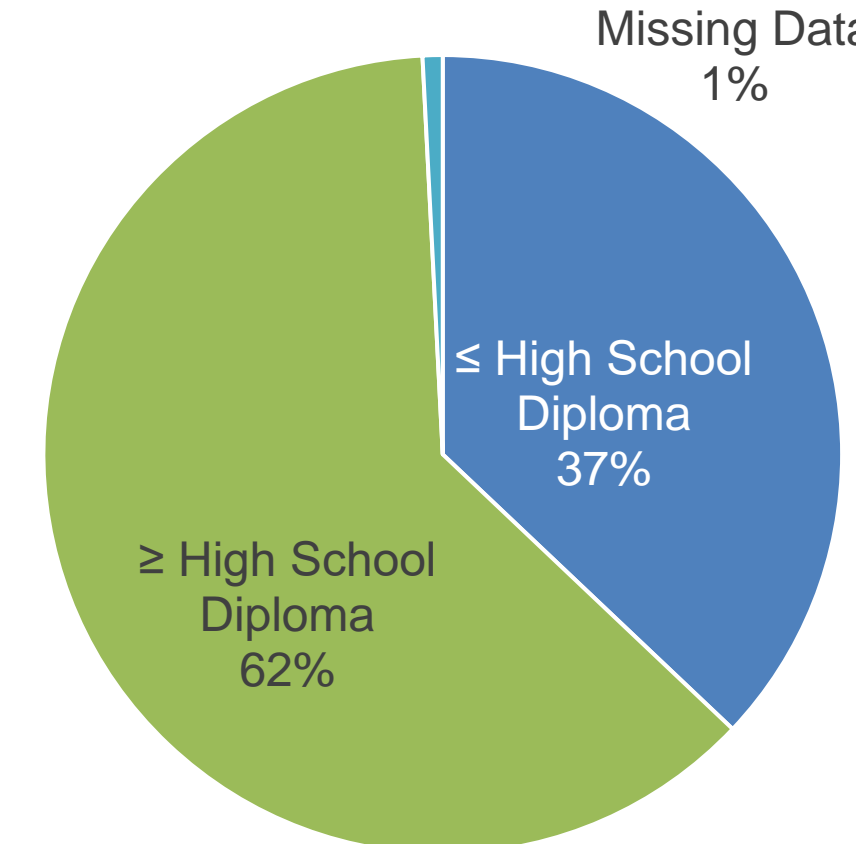
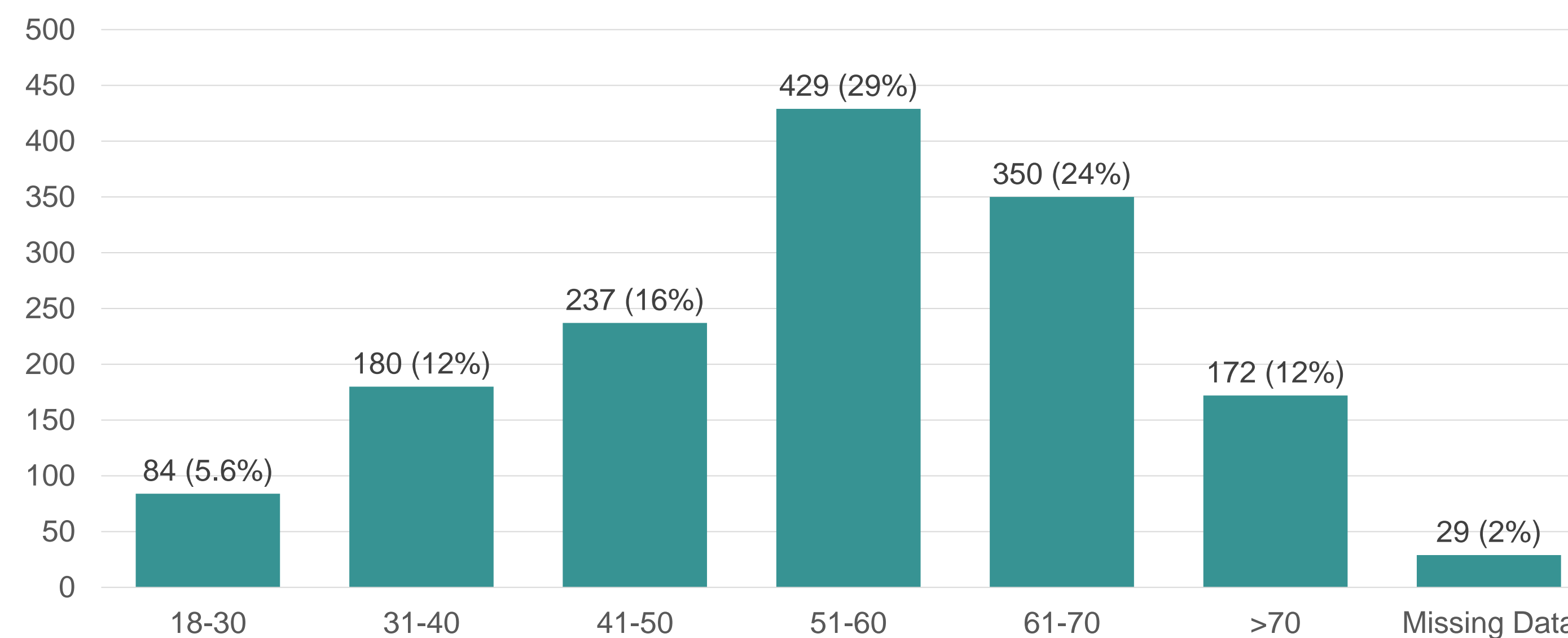


Figure 7. Age of Survey Participants



- The Chi-square analysis revealed a statistically significant difference ($p < 0.05$) between smokers who reported satisfactory healthcare quality versus unsatisfactory healthcare quality for all markers of effective patient-provider communication. (Table 1)
- Logistic regression analysis revealed, compared to a smoker who received good quality care, smokers who did not were more likely to report that a health care provider did not provide them with any of the patient-provider communication markers. (Table 2)

References:

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- [5] Stewart MA. Effective physician-patient communication and health outcomes: a review. (1995). *CMAJ*; 15(9):1423-1433.
- [6] The Challenge and Potential for Assuring Quality Health Care for the 21st Century. Content last reviewed June 2018. Agency for Healthcare Research and Quality, Rockville, MD. <https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/21st/index.html>

Results (cont.)

Table 1. Chi-square comparing smokers that reported excellent quality care vs satisfactory or below quality of care response to patient-provider communication questions.

In the past 12 months, how often did a doctor, nurse, or other health professional...	Excellent Quality of Care	≤ Satisfactory Quality of Care	p-value
Give you the chance to ask all the health-related questions you had.			
Always	482 (59%)	61 (21%)	$p < 0.001^*$
Usually	240 (29%)	97 (34%)	
Sometimes	86 (11%)	104 (36%)	
Never	9 (.01%)	25 (.08%)	
Give the attention you needed to your feelings and emotions.			
Always	577 (70%)	43 (15%)	$p < 0.001^*$
Usually	197 (24%)	115 (39%)	
Sometimes	41 (.05%)	98 (33%)	
Never	11 (.01%)	39 (13%)	
Involve you in decisions about your health care as much as you wanted.			
Always	554 (67%)	28 (.09%)	$p < 0.001^*$
Usually	225 (27%)	106 (36%)	
Sometimes	41 (.05%)	119 (41%)	
Never	4 (0%)	38 (13%)	
Make sure you understood the things you needed to do to take care of your health.			
Always	702 (62%)	60 (20%)	$p < 0.001^*$
Usually	306 (27%)	130 (44%)	
Sometimes	111 (1%)	87 (29%)	
Never	19 (.02%)	19 (.06%)	
Explain things in a way you could understand.			
Always	658 (79%)	75 (26%)	$p < 0.001^*$
Usually	163 (20%)	135 (46%)	
Sometimes	8 (0%)	69 (24%)	
Never	0	12 (.04%)	
Spend enough time with you.			
Always	575 (70%)	35 (12%)	$p < 0.001^*$
Usually	207 (25%)	114 (39%)	
Sometimes	36 (.04%)	112 (38%)	
Never	5 (0%)	32 (11%)	
Help you deal with feelings of uncertainty about your health or health care.			
Always	522 (63%)	18 (.06%)	$p < 0.001^*$
Usually	229 (28%)	90 (31%)	
Sometimes	60 (.07%)	125 (43%)	
Never	12 (.01%)	57 (20%)	

Table 2. Logistic Regression results of smokers who reported good vs. bad quality of care for patient-provider communication indicator questions.

Question	OR (95% CI)	p-value
Give you the chance to ask all the health-related questions you had.	8.039 (4.648-14.178)	<.0001
Give the attention you needed to your feelings and emotions.	17.246 (9.814-31.360)	<.0001
Involve you in decisions about your health care as much as you wanted.	28.381 (15.149-56.975)	<.0001
Make sure you understood the things you needed to do to take care of your health.	16.510 (9.460-29.291)	<.0001
Explain things in a way you could understand.	19.574 (10.597-36.620)	<.0001
Spend enough time with you.	14.560 (8.310-26.264)	<.0001
Help you deal with feelings of uncertainty about your health or health care.	20.138 (10.672-41.016)	<.0001

Conclusion

- The analysis revealed room for improvement in quality of health care through the implementation of effective patient-provider communication.
- Future medical and public health policies and training related to improving quality of health care for smokers should implement effective patient-provider communication for future interventions.

