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AN ANALYSIS OF PHARMACEUTICAL USE AMONGST PATIENTS OF A FREE CLINIC: OPIOIDS, COMPLEMENTARY AND ALTERNATIVE MEDICINE, AND OTHER PAIN RELIEVERS

Sullivan Riley Howard

Akiko Kamimura, PhD, MSW, MA

Department of Sociology

An analysis of pharmaceutical use amongst patients of a free clinic: opioids, complementary and alternative medicine, and other pain relievers

Abstract

Introduction: The number of deaths from opioid overdose has been increasing since 1990's. The purpose of this study was to describe the use of opioids and complementary and alternative medicine (CAM) among uninsured free clinic patients.

Methods: A self-administered paper survey was collected to describe the use of opioids, complementary and alternative medicine, and other pain relievers from 877 free clinic patients from January to April 2018.

Participants were ages 18 or older and spoke and read English or Spanish. Three groups – US born English speakers, non-US born English speakers, and Spanish speakers – were compared.

Results: US born English speakers are more likely to use CAM (29.6% vs. 16.8% and 23.7%, $p < 0.05$), non-prescription pain relievers (85.4% vs 67.0% and 65.2%, $p < 0.01$), and prescription opioids (17.6% vs 11.5% and 7.4%), and to be more knowledgeable about opioids (3.42 vs 2.23 and 1.31, $p < 0.01$) compared to non-US born English speakers and Spanish speakers. Second, the main source of opioids for free clinic patients is a health care facility other than a free clinic (15.1%) as well as friends. Third, while non-prescription pain relievers are commonly used among free clinic patients, CAM is less common to use for pain control (68.0% vs 23.6%).

Discussion and conclusion: Due to the national increase in opioid use and misuse, it is extremely prevalent to study opioid and non-opioid pain management amongst vulnerable populations such as free clinic patients.

Keywords: opioids; complementary and alternative medicine; pain relievers; free clinics; medically uninsured

Introduction

The number of deaths from opioid overdose has been increasing since the 1990's with a significant increase since 2013.¹ Approximately 40 % of opioid deaths are caused by prescription opioids.² Opioids are prescribed for controlling chronic pain.³ Prescription opioid abuse is predominantly found among White patients.⁴ The exact protective factors that keep racial minorities from being equally afflicted by the problem of opioid abuse are unknown. Due to the complexity of this issue, it is also challenging to discern how the opioid crisis affects insured versus uninsured individuals. Because health care for uninsured individuals is limited to specific settings as emergency departments and free clinics, uninsured patients may have fewer opportunities to be prescribed an opioid. Additionally, uninsured people are less likely to utilize health care services than people with insurance.⁵

A previous study on opioid risks among uninsured individuals using a free clinic indicated several gaps in opioid-related research.⁶ First, opioid abuse among Hispanic free clinic patients needs to be further examined. Second, since free clinics do not necessarily prescribe opioids, it is important to determine the possible sources of opioid obtainment among free clinic patients. Third, given that prescription opioids are primarily used for pain control, it is important to examine what non-opioid pain relievers free clinic patients are using in order to better understand free clinic patients and pain relief.

In understanding factors that protect certain populations from relying on prescription opioids for pain relief, it is reasonable and necessary to study complementary and alternative medicine (CAM) utilized for pain. While CAM is not always effective, several studies found that CAM is effective to control pain in some cases.⁷ In fact, pain is the most common reason to use CAM in the US.⁷ However, whether CAM can substitute to medication requires further research.⁷ But little is known about uninsured individuals' use of non-opioid pain relievers or CAM.

The purpose of this study was to describe the use of opioids and complementary and alternative medicine among uninsured free clinic patients. In particular, this study focused on racial/ethnic differences,

information related to obtaining prescription opioids, and the use of CAM and non-opioid pain relievers. This study increases knowledge, which is currently lacking, about prescription opioid use among uninsured individuals. This study was descriptive because it aimed to gather information about the use of opioids and complementary and alternative medicine among uninsured free clinic patients to develop future research on this topic. Since opioid misuse is a significant public health issue, examining understudied populations can be worthwhile to develop effective prevention strategies. Additionally, it is of the utmost importance to examine populations who are not as heavily affected by the opioid crisis in order to better understand what protective factors are in place that keep them from being heavily affected.

Methods

Setting

This study was approved by the Institutional Review Board (IRB). Data were collected at a free clinic in a metropolitan area of Utah. The first author has been collaborating with the free clinic since 2012 for community-based research. For un- or under- insured individuals or undocumented immigrants, a free clinic is often the only health care facility in which they are able to seek medical care, other than emergency departments.⁸ Free clinics take important roles in the US health system to serve underserved populations.⁸ The state of Utah has higher opioid-related overdose deaths, as well as opioid prescriptions than the national average.^{9,10} Although the free clinic does not prescribe opioids, there is an increasing concern about opioid abuse among its patients because the clinic is in the area where opioid abuse is prevalent. The clinic has been providing free primary care services to uninsured individuals living below 150 % of the federal poverty level since 2005. The clinic is run by 12 paid staff and over 400 volunteers. While patients of the clinic are from more than 50 countries, approximately half of the patients self-identify as Hispanic. The majority of the clinic's patients are between age 19 and age 64. The primary focus areas of the clinic's services are managing chronic conditions such as diabetes, hypertension and heart disease.

Compared to the results of the national survey on free clinics,¹¹ the characteristics of the patients of this clinic have some similarities in terms of being uninsured, mostly ages 18-64 and being in poverty. However, this clinic has higher percentage of Hispanic patients than the national average (25.1%). In addition, while 41.9% of free clinic patients are homeless in the nation, the clinic does not knowingly serve homeless patients because there is another free clinic which treats only homeless people in the same city.

Study participants and data collection

Participants were patients of the clinic who spoke English or Spanish and were ages 18 or older. Patients who did not speak English and Spanish were not included. Since this survey was self-administered, patients with limited literacy were not included. The majority of the clinic's patients speak English and/or Spanish. All survey materials were available in English and Spanish. A translator translated English materials into Spanish. Another translator performed back-translation from Spanish to English to ensure the accuracy of the forward-translation. The third translator checked the accuracy of the translation. Research assistants approached all potential participants in the waiting room. Patients who expressed interest in participating in the survey received a consent cover letter and the survey instrument. Consent was obtained from each participant. The research assistants verified each participant filled the survey only once. Participants received a small gift (e.g. reusable washcloths, 1 US\$ or less value) when they completed the survey.

The participants took approximately 15 minutes to complete the survey which included 37 items/questions. Because the sample was a convenient sample, a response rate was not known. In addition, the number of eligible patients who declined is unknown. The research assistants reported there were few refusals. Per the research assistants, the main reasons of the refusals were lack of time, not having reading glasses, not feeling well, and being called by a provider. Prior to the survey collection, this particular survey instrument was not tested. However, another survey on opioid use was conducted at the same clinic in summer 2017. The questions in this survey were developed based upon the previous survey's results and areas of potential further

research. Furthermore, to measure the CAM use, expectation of providers' understanding in CAM, and knowledge of opioids, the questions which had been already tested were used. The use of these questions ensured the accuracy of measuring.

Measures

Use of complementary and alternative medicine (CAM)

There was one question about oral herbal remedy "Do you currently take or have you ever taken an oral herbal remedy (herbal medicine)?" (yes/no/don't know).¹² In addition, for each type of CAM, participants were asked whether they used the medicine/supplement/therapy in the past 12 months. The list of types of CAM were extracts from the Ho et al.'s study.¹³ The types of CAM asked in the survey included: Vitamins/supplements; Herbal medicine; Dietary/ nutritional therapy; Massage; Meditation/ relaxation exercises; Chiropractic; Acupuncture; Yoga; Cupping; Curanderismo (traditional healer); Tai chi; Espiritismo (Spiritism); Hypnosis; Santeria (Afro-American religion developed in Caribbean); and other.

Expectation to physicians regarding CAM

Sharing of CAM use with physicians was measured by a 4-item questionnaire using a 5-point Likert scale (5 = strongly agree, 1 = strongly disagree).¹³ Some CAM questions were developed from a study that examined CAM use and the communication of CAM practices to a health care provider.¹³ The 4-items were as follows: 1) "I feel comfortable telling my doctor about complementary and alternative medicine therapies I use or might use.;" 2) "I would tell my doctor if I went to a complementary and alternative medicine practitioner for treatment.;" 3) "I would like my physician to have basic knowledge of complementary and alternative medicine or be able to refer me to someone with more information or skills in complementary and alternative medicine therapies.;" 4) "I would like my physician to ask me about any current complementary and alternative medicine therapies I use." Cronbach alpha for this study population was 0.815, which indicates good reliability.

Knowledge about opioid overdoses

Twelve items were asked (true/false/I don't know) to measure levels of the knowledge of opioid overdoses.¹⁴

The examples of the items are “Restlessness, muscle and bone pain, and insomnia are symptoms of opioid withdrawal,” “Trouble breathing is NOT related to opioid overdose,” and “All overdose are fatal (deadly).” All items with correct answers are presented in Appendix. Scoring was based on the number of items which were correct.

Other opioid or pain control related questions

Additional questions regarding opioids or pain control were asked (yes/no/don't know): “Have you ever used herbal remedy or complementary and alternative medicine such as the choices above to control pain?” “Have you taken non-prescription pain medicine such as Tylenol in the past 12 months?” “Have you been prescribed non-opioid pain reliever such as Naproxen in the past 12 months?” “Have you been prescribed opioid pain reliever such as oxycodone or hydrocodone (Vicodin or Lortab) in the past 12 months?” “Do you know anyone (e.g. your family or friend) who have abused opioids?” In addition, participants were asked in their opinion how difficult is it to obtain opioids (very easy/easy/neutral/difficult/very difficult) and whether they had over-used opioids in the past (yes/no/don't know). If they had used opioids in the past, their source of obtaining was asked. Furthermore, participants were asked whether they had a job which is physically demanding and causes physical pain (e.g. back pain) in the past 12 months (yes/no/don't know).

General health and demographic characteristics

Self-rated general health was asked using a 5-point Likert scale: excellent, very good, good, fair, or poor. The following socio-demographic questions were also asked: age, gender, race/ethnicity, educational attainment, employment status, marital status, nativity, years in the US (non-US born only), and being a patient of the free clinic for two or more years (or not).

Data analysis

Data were analyzed using IBM SPSS ver 22. The analyses were primarily based on the comparison of the following three groups: US born English speakers; non-US born English speakers and Spanish speakers because previous studies on free clinic patients suggest the three groups reported different levels of substance use and opioid risks [6]. The three groups were compared by Pearson's Chi-square tests for categorical variables and ANOVA tests for continuous variables. Only completed surveys were included in analysis. There were few item non-responses. Item non-responses were treated as missing in statistical analysis.

Results

Table 1 summarizes the socio-demographic characteristics of participants (N=887 – US born English speakers n=199, non-US born English speakers n=191, and Spanish speakers n = 497). Nearly 70% of the participants were female (n=600, 67.6%). The most common race/ethnicity among the participants was Hispanic/Latino/Latina (n=604, 68.1%) followed by non-Hispanic white (n=170, 19.2%). Slightly over 40% of the participants had some college or higher educational attainment (n=366, 41.3%).

Factors such as educational attainment, marital status, and country of origin were included. The percentage of people having had some college or higher educational attainment was much lower among Spanish speakers (n=164, 33%) than US born (n=104, 52.3%) and non-US born (n=98, 51.3%) English speakers. Less than half of the participants were employed (n=405, 45.7%). Spanish speakers (n=247, 49.7%) had a higher

percentage of being employed than US born (n=81, 40.7%) and non-US born (n=77, 40.3%) English speakers. Approximately 45% of the participants were married (n=396, 44.6%). US born English speakers (n=43, 21.6%) had a much lower marriage rate compared to non-US born English speakers (n=130, 53.9%) and Spanish speakers (n=250, 50.3%). Approximately one-quarter of the participants were US born (n=218, 24.6%). Non-US born participants were from 34 countries. The most common country of origin was Mexico (n=274) followed by Venezuela (n=64), Peru (n=38), El Salvador (n=26), and Tonga (n=22).

Additionally, length of time as a patient was asked in order to better understand the patient population. Approximately 45% of the participants had been patients of the clinic for two years or longer (n=395, 44.5%). The percentage of being a patient of the clinic was highest among Spanish speakers (n=260, 52.3%) followed by non-US born English speakers (n=86, 45%) and US born English speakers (n=49, 24.6%). The average age of the participants was 45.73 (sd =13.86). Spanish speakers (mean=47.60, sd =13.86) were older than non-US born English speakers (mean=45.79, sd = 15.92) and US born English speakers (mean = 41.26, sd = 13.68). The average self-rated health status was 3.18 (sd = 0.96).

Table 2 presents the use of CAM and pain management among the participants. More than one-third of the participants had used oral herbal remedy (n=315, 35.5%). The percentage of having used oral herbal remedy was highest among US born English speakers (n=84, 42.2%) followed by Spanish speakers (n=182, 36.6%) and non-US born English speakers (n=49, 25.7%). The most common complementary and alternative medicine used in the past 12 months was vitamins/supplements (n=525, 59.2%) followed by herbal medicine (n=169, 19.1%). Slightly less than one-quarter of the participants had used CAM to control pain (n= 209, 23.6%). US born English speakers (n=59, 29.6%) had a higher percentage of having used CAM to control pain than Spanish speakers (n=118, 23.7%) and non-US born English speakers (n=32, 16.8%). Nearly 70% of the participants preferred non-prescription pain relievers (n=603, 68%).

Pain reliever specifics were also examined. In the past 12 months, participants reported the following prevalence for each type of pain reliever: having used a non-prescription pain medicine (n=622, 70.1%); having been prescribed a non-opioid pain reliever (n=236, 26.6%); and having been prescribed an opioid pain reliever

(n=94, 10.6). US born English speakers reported a higher percentage of knowing anyone who have abused opioids (41.7%) than non-US born English speakers (8.4%) and Spanish speakers (2.8%). Likewise, US born English speakers reported a higher percentage of having over-used opioids (26.6%) than non-US born English speakers (7.3%) and Spanish speakers (1.6%).

Furthermore, prevalence of manual labor employment was analyzed. US born English speakers reported a higher percentage of having a job which is physically demanding and causes physical pain in the past 12 months (46.2%) than non-US born English speakers (24.6%) and Spanish speakers (37.4%). Additional analyses were conducted to examine the associations between opioid or CAM use and socio demographic characteristics using logistic regression. There was no difference in being prescribed opioids in the past 12 months by socio-demographic characteristics. Participants who had some college or higher educational attainment were less likely to have used herbal medicine in the past 12 months ($p < 0.01$).

Over one-third of US born English speakers (35.6%) believed it would be easy or very easy to obtain opioids while the percentage was lower among non-US born English speakers (21.9%) and Spanish speakers (13.2%). The most common place where participants had obtained opioids was a health care facility other than the clinic of this study (n=120, 15.1%). The second most common place was the clinic of this study (n=42, 5.3%) although the clinic does not prescribe opioids. It is important to note that this contradictory finding may be due to the low levels of understanding of what is considered an opioid. US born English speakers had higher levels of expectations of providers' understanding in CAM and of knowledge of opioids compared to non-US born English speakers and Spanish speakers.

Discussion

This study described the use of opioids and complementary and alternative medicine among uninsured free clinic patients. There are three main findings. First, US born English speakers are more likely to use CAM, non-prescription prescription pain relievers, and prescribed pain relievers including opioids and to be more

knowledgeable about opioids compared to non-US born English speakers and Spanish speakers. Second, the main source of opioids for free clinic patients is a health care facility. Third, CAM is less common to use for pain control in comparison to non-prescription pain relievers.

The results of this study suggest that in comparison to non-US born English speakers and Spanish speakers, US born English speakers have a higher likelihood of utilizing CAM, non-prescription pain relievers, and prescription pain relievers including opioids. Additionally, this group was shown to be more knowledgeable about opioids. Previous studies suggest that immigrants have a lower prevalence of substance use than US born populations.¹⁷ Likewise, among free clinic patients, US born English speakers have a higher prevalence of substance use than non-US born English speakers and Spanish speakers.¹⁸ It is important to implement opioid abuse prevention programs for non-US born English speakers and Spanish speakers as well as US born English speakers.

National data suggests that the primary sources to obtain prescription opioids among non-Medicaid populations are friends and relatives.⁴ This study, however, concluded that the main source of obtaining opioids among free clinic patients is a health care facility other than a free clinic. It is important to note that a small number of participants reported that they obtained opioids from the clinic of this study (although the clinic does not prescribe opioids). This may be due to lack of knowledge about what they were prescribed, what opioids are, or not wanting to disclose where they obtained opioids.

In terms of pain control and CAM or other non-opioid use, CAM was not commonly used while non-prescription pain relief was common among participants. Higher levels of educational attainment and income are associated with greater CAM usage.²¹ CAM can be costly in certain areas such as the cost associated with a massage or going to a chiropractor. Because the participants in this survey were free clinic patients, there may be a correlation between socio-economic status and use of CAM. The use of non-prescription pain relievers were more common. Non-prescription pain relievers, such as Tylenol or Ibuprofen, are low cost and easy to obtain. In fact, the clinic of this study offers many over the counter pain relievers to the patients, free of charge. This issue of managing pain among free clinics needs to be further examined.

While this study contributes to increasing the knowledge about opioid use, CAM and non-opioid pain relievers among free clinic patients, it has limitations. This study is descriptive and does not examine causal relationships among factors. There is a possibility that some of the study participants did not understand the questions or possibly mistook an opioid for another medication that could have pain relieving qualities, such as Ibuprofen. Further research is necessary to clarify the levels of understanding of pain medicine among the free clinic population. Additionally, the over-use of opioids is a socially sensitive topic. Thus, some participants might have chosen socially desirable answers. This may be especially applicable for undocumented immigrants. However, this study did not ask immigration status. Finally, since the participants were not asked their pain levels and diagnoses, some of the participants of this study might not have chronic pain symptoms and thus might not have much to respond to opioid use or misuse.

Conclusion

Due to the national increase in opioid use and misuse, it is extremely prevalent to study opioid and non-opioid pain management amongst vulnerable populations such as free clinic patients. While it is known that Hispanics have a lower rate of opioid use compared to non-Hispanic Whites and non-Hispanic blacks, it is unknown exactly what factors influence this trend and what pain medications Hispanics are utilizing instead of opioids.²⁴ It is necessary that the US directs more resources, attention, and concern towards people affected by the opioid crisis and continue researching the racial and socioeconomic factors within this epidemic. Regarding patient treatment, it is recommended for health care professionals to develop cultural competence related to CAM. This study builds knowledge and creates a platform for further research on the topic of pain management techniques and opioid use amongst free clinic patients. Future studies may examine the communication between patients and providers regarding opioids, stress relief, and lack of pain management. Furthermore, future research should consider the role of acculturation for use/non-use of CAM/pharmaceuticals because culture serves an important role in health beliefs.

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Appendix. Items of knowledge of opioids and correct answers.

1 Long-acting opioids are used to treat chronic “round the clock” pain.	True
2 Methadone is a long-acting opioid.	True
3 Restlessness, muscle and bone pain, and insomnia are symptoms of opioid withdrawal.	True
4 Heroin, OxyContin, and fentanyl are all examples of opioids.	True
5 Trouble breathing is NOT related to opioid overdose.	False
6 Clammy and cool skin is NOT a sign of an opioid overdose.	False
7 All overdose are fatal (deadly).	False
8 Using a short-acting opioid and a long-acting opioid at the same time does NOT increase your risk of an opioid overdose.	False
9 If you see a person overdosing on opioids, you can begin rescue breathing until a health worker arrives.	True
10 A sternal rub helps you evaluate whether someone is unconscious.	True
11 Once you confirm an individual is breathing, you can place him/her into the recovery position.	True
12 Narcan (naloxone) will reverse the effect of an opioid overdose.	True

Table 1:

No. (%) or Mean (*SD*). N.S. – Not significant. N/A – Not applicable

p-value denotes significance from Pearson’s Chi-square tests between categorical variables (for cell size ≥ 5 only), and ANOVA tests for continuous variables comparing US born English speakers, non-US born English speakers, and Spanish speakers.

^a A post hoc Tukey test indicated that US born English speakers were significantly younger than non-US born English speakers and Spanish speakers at the 0.05 level. But there was no significant difference in age between non-US born English speakers and Spanish speakers.

^b Higher numbers indicate worse health (range 1-5).

Distribution of continuous variables:

Age has a few very old participants (older than 70) but also has some skewness toward younger participants. Years in the US were skewed toward shorter years. Health was skewed toward higher number (poorer health).

Table 2:

No. (%) or Mean (*SD*). N.S. – Not significant. N/A – Not applicable

p-value denotes significance from Pearson’s Chi-square tests between categorical variables (for cell size ≥ 5 only), and ANOVA tests for continuous variables comparing US born English speakers, non-US born English speakers, and Spanish speakers.

CAM: complementary and alternative medicine

^a The result of a post hoc Tukey test indicates US born English speakers reported higher expectations of providers’ understanding in CAM than non-US born English Speakers and Spanish speakers. There was no significant difference between non-US born English speakers and Spanish speakers.

^b The result of a post hoc Tukey test indicates these three groups are different each other at the 0.05 level.

[#] The sum is not 100% because there were participants who did not have preference or did not want to take any pain relievers.

Distribution of continuous variables:

Expectation of providers’ understanding in CAM is skewed to higher numbers (higher expectations). Knowledge of opioid is skewed toward lower scores (lower knowledge).

TABLE 1:

	Total (N=887)	US born English speakers (n=199)	Non-US born English speakers (n=191)	Spanish speakers (n=497)	<i>p</i>- value	
Frequency (%)						
Female	600 (67.6)	128 (64.3)	121 (63.4)	351 (70.6)	N.S.	
Race/Ethnicity						
White – Non-Hispanic	170 (19.2)	128 (64.3)	31 (16.2)	11 (2.2)	<0.01	
Hispanic/Latino/Latina	604 (68.1)	47 (23.6)	81 (42.4)	476 (95.8)	<0.01	
Asian or Pacific Islander	69 (7.8)	8 (4.0)	56 (29.3)	5 (1.0)	<0.01	
Other	44 (5.0)	16 (8.0)	23 (12.0)	5 (1.0)		
Some college or higher	366 (41.3)	104 (52.3)	98 (51.3)	164 (33.0)	<0.01	
Currently employed	405 (45.7)	81(40.7)	77 (40.3)	247 (49.7)	<0.05	
Currently married	396 (44.6)	43 (21.6)	103 (53.9)	250 (50.3)	<0.01	
US born	218 (24.6)	199 (100)	0	19 (3.8)		
Patient of the clinic – 2 years or longer	395 (44.5)	49 (24.6)	86 (45.0)	260 (52.3)	<0.01	
Mean (SD)						<i>F</i>
Age	45.73 (13.86)	41.26 (13.68)	45.79 (15.92)	47.60 (13.86)	<0.01 ^a	14.77
Years in the US (non-US born only n = 669)	14.45 (10.02)					
Self-rated general health^b	3.18 (0.96)	3.27 (1.14)	3.13 (1.00)	3.16 (0.86)	N.S.	1.12

TABLE 2:

	Total (N=887)	US born English speakers (n=199)	Non-US born English speakers (n=191)	Spanish speakers (n=497)	p-value
Frequency (%)					
Have used an oral herbal remedy	315 (35.5)	84 (42.2)	49 (25.7)	182 (36.6)	<0.01
Vitamins/supplements in the past 12 months	525 (59.2)	129 (64.8)	103 (53.9)	293 (59.0)	N.S.
Herbal medicine in the past 12 months	169 (19.1)	60 (30.2)	29 (15.2)	80 (16.1)	<0.01
Have used CAM to control pain	209 (23.6)	59 (29.6)	32 (16.8)	118 (23.7)	<0.05
Preference of pain reliever: non-prescription[#]	603 (68.0)	140 (70.4)	124 (64.9)	339 (68.2)	N.S.
Preference of pain reliever: prescription[#]	204 (23.0)	47 (23.6)	34 (17.8)	123 (24.7)	N.S.
Have taken non-prescription pain medicine in the past 12 months	622 (70.1)	170 (85.4)	128 (67.0)	324 (65.2)	<0.01
Have been prescribed non-opioid pain reliever in the past 12 months	236 (26.6)	48 (24.1)	35 (18.3)	153 (30.8)	<0.01
Have been prescribed opioid pain reliever in the past 12 months	94 (10.6)	35 (17.6)	22 (11.5)	37 (7.4)	<0.01
Know anyone (e.g. your family or friend) who have abused opioids	113 (12.7)	83 (41.7)	16 (8.4)	14 (2.8)	<0.01
Have over-used opioids	75 (8.5)	53 (26.6)	14 (7.3)	8 (1.6)	<0.01
Had a job which is physically demanding and causes physical pain (e.g. back pain) in the past 12 months	325 (36.6)	92 (46.2)	47 (24.6)	186 (37.4)	<0.01
How it is difficult to obtain opioids					
Very easy	67 (9.6)	33 (17.3)	16 (10.0)	18 (5.2)	<0.01
Easy	82 (11.7)	35 (18.3)	19 (11.9)	28 (8.0)	
Neutral	282 (40.3)	65 (34.0)	55 (34.4)	162 (46.4)	
Difficult	139 (19.9)	37 (19.4)	35 (21.9)	67 (19.2)	
Very difficult	130 (18.6)	21 (11.0)	35 (21.9)	74 (21.2)	
Where obtained opioids (if obtained) (multiple answers)					
The clinic of this study	42 (5.3)	5 (2.5)	17 (9.3)	20 (4.8)	
Health care facility (other than the clinic of this study)	120 (15.1)	67 (34.0)	16 (8.8)	37 (8.9)	
Family	27 (3.4)	19 (9.6)	2 (1.1)	6 (1.4)	
Someone	28 (3.5)	21 (10.7)	4 (2.2)	3 (0.7)	
Mean (SD)					
Expectation of providers' understanding in CAM	4.22 (0.70)	4.34 (0.69)	4.30 (0.68)	4.14 (0.71)	<0.01 ^a
Knowledge of opioid (range 0-12)	2.25 (2.86)	4.63 (3.42)	2.23 (2.76)	1.31 (1.96)	<0.01 ^b