

The Use of Qualitative Research in Large Quantitative Studies: Capturing the Subtleties

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Purpose of the presentation

- ▶ The purpose of this presentation is to illustrate how qualitative data collection often aids in the interpretation of data from large quantitative studies.
 - ▶ Description of the larger study (The South Florida Health Survey).
 - ▶ Description of our findings related to prescription opioid abusers from this large scale project.
 - ▶ Discussion of qualitative data to contextualize our quantitative findings.
 - ▶ Discussion of how findings can be used to inform new research.



South Florida Health Survey

- ▶ This research was supported by Grant Number R01DA021330 from the National Institute On Drug Abuse.
- ▶ The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse or the National Institutes of Health.
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National Institutes
of Health

South Florida Health Survey

- ▶ 1629 non-medical prescription drug users
 - ▶ ages 18+
 - ▶ misused medications 5 or more times in the past 90 days (or 90 days before entering substance abuse treatment).
- ▶ The study examined prescription drug misuse and diversion:
 - ▶ transfer of a prescription drug from a lawful to an unlawful channel of distribution or use.



South Florida Health Survey

The sample was drawn from the following 6 purposive subsamples:

1. Street-based drug users
2. Gay/bisexual male stimulant users
3. Methadone maintenance clients
4. Publicly-funded treatment clients
5. Private pay treatment clients
6. Elderly (age 60 and over)



Methods

- ▶ Purposive sampling strategies and chain referral sampling
- ▶ The Global Appraisal of Individual Need (GAIN) was the primary data collection instrument which encompassed:
 - ▶ demographics (age, gender, race, subsample)
 - ▶ health status
 - ▶ mental health
 - ▶ risk behaviors
 - ▶ substance use, abuse, and dependence based on DSM-IV criteria



Methods

- ▶ Also examined:
 - ▶ diversion sources (doctors, pain clinics, friends, dealers, etc.)
 - ▶ route of administration (oral, snorting, smoking, injecting, rectal/vaginal, other)
 - ▶ self reported HIV prevalence
 - ▶ needle risk behaviors



Analysis

- ▶ Only included participants reporting at least one occasion of prescription opioid abuse in the past 90 days.
- ▶ Excluded those reporting the abuse of stimulants, antidepressants or antipsychotics.



Analysis

- ▶ Descriptive statistics: demographics, substance abuse and dependence, and route of administration
- ▶ Bivariate logistical regression models to predict route of administration by descriptives
- ▶ Multivariate logistic regression models to examine past year patterns of risky needle use among injectors

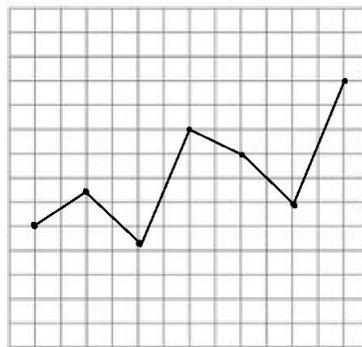


TABLE 2. Bivariate Logistic Regressions Predicting Route of Administration (South Florida Opioid Abusers N = 791)

Variable	Oral Odds Ratio	95% CI	p	Snorting Odds Ratio	95% CI	p	Smoking Odds Ratio	95% CI	p	Injecting Odds Ratio	95% CI	p
Demographics												
Age (years)												
18–24	.126	.048, .331	.000	9.57	5.91, 15.5	.000	5.38	2.86, 10.11	.000	8.39	4.34, 16.25	.000
25–34	.265	.099, .705	.008	4.71	3.11, 7.13	.000	1.87	.977, 3.59	.059	5.53	2.91, 10.55	.000
35–44	.487	.163, 1.51	.218	2.70	1.72, 4.23	.000	.928	.417, 2.07	.855	4.16	2.09, 8.270	.000
45+	—Ref—			—Ref—			—Ref—			—Ref—		
Male gender	1.17	.712, 1.92	.534	.778	.582, 1.04	.090	1.23	.810, 1.88	.328	.776	.556, 1.084	.137
Ethnicity												
Hispanic	.275	.055, 1.39	.118	2.02	1.21, 3.35	.007	1.19	.582, 2.45	.628	5.97	1.96, 18.12	.002
White	.102	.025, .424	.002	4.47	2.97, 6.71	.000	1.30	.737, 2.28	.370	17.3	6.30, 47.62	.000
African American	—Ref—			—Ref—			—Ref—			—Ref—		
Subsample												
Public treatment	.084	.011, .645	.017	3.82	2.22, 6.57	.000	2.56	1.20, 5.50	.015	3.69	1.63, 8.34	.002
Private treatment	.039	.005, .288	.001	7.48	4.37, 12.82	.000	3.77	1.83, 7.78	.000	6.63	3.04, 14.46	.000
Methadone maintenance	.103	.014, .786	.028	4.58	2.73, 7.69	.000	.295	.104, .837	.022	6.55	3.01, 14.24	.000
Men who have sex with men	1.41	.87, 22.8	.809	1.21	.692, 2.10	.510	1.08	.463, 2.49	.867	.881	.336, 2.31	.797
Street drug users	—Ref—			—Ref—			—Ref—			—Ref—		
Substance use: 90 days												
Cocaine (powder)	2.11	1.28, 3.48	.003	.897	.677, 1.19	.448	.972	.653, 1.45	.887	.660	.475, .917	.013
Crack cocaine	1.06	.65, 1.73	.829	.742	.560, .984	.038	1.20	.805, 1.78	.374	1.17	.844, 1.63	.345
Heroin	.559	.737, .929	.025	1.84	1.33, 2.54	.000	1.13	.726, 1.75	.596	5.55	3.90, 7.92	.000
Prescription benzodiazepines	1.96	1.16, 3.30	.012	1.19	.849, 1.67	.313	1.39	.830, 2.33	.210	1.42	.933, 2.16	.102
Opioid use												
Oxycodone	.492	.239, 1.01	.054	2.47	1.74, 3.50	.000	2.03	1.15, 3.60	.015	4.45	2.50, 7.90	.000
OxyContin	.543	.327, .924	.019	2.45	1.84, 3.26	.000	1.64	1.10, 2.46	.016	2.42	1.71, 3.41	.000
Hydrocodone	1.45	.858, 2.45	.165	1.37	1.02, 1.82	.034	.898	.596, 1.35	.606	1.27	.912, 1.77	.156
Methadone	.920	.513, 1.65	.780	2.26	1.58, 3.25	.000	.700	.414, 1.18	.183	2.00	1.37, 2.90	.000
Codeine	4.35	1.35, 14.1	.014	.667	.451, .988	.043	.976	.560, 1.70	.932	.316	.170, .588	.000
Hydromorphone	.496	.254, .970	.040	2.28	1.37, 3.79	.001	1.08	.562, 2.06	.823	9.08	5.44, 15.13	.000
Morphine	1.20	.466, 3.09	.706	1.46	.866, 2.45	.157	.812	.377, 1.75	.595	2.87	1.71, 4.83	.000
Past-year dependence	.000	.000, —	.998	4.18	1.96, 8.89	.000	6.99	.951, 51.4	.056	4.04	1.23, 13.3	.021

CI = confidence interval; Ref = reference category.
 Bolded number indicates significance at $p < .05$.

Results

- ▶ Younger users were significantly less likely to use oral routes of administration compared to older users.
- ▶ Younger users had significantly higher odds of intranasal, smoking and injection of prescription pills compared to older users.

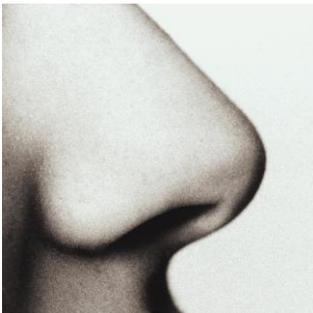


TABLE 3. Multivariate Logistic Regressions Predicting Past-Year Needle Risk Among Drug Injectors in South Florida (N = 264)

Variable	Odds ratio	95% CI	p
Reused a needle			
Age (years)			
18–24	3.118	1.20, 8.11	.020
25–34	1.020	.442, 2.35	.964
35–44	2.811	1.06, 7.49	.039
45+	—Ref—		
Past 90-day prescription drug injection ^a	1.844	.992, 3.43	.053
Reused a needle without cleaning it			
Age			
18–24	3.204	1.31, 7.83	.011
25–34	1.450	.622, 3.38	.389
35–44	1.792	.723, 4.44	.208
45+	—Ref—		
Past 90-day prescription drug injection ^a	2.302	1.30, 4.09	.004
Let someone else use your needle after you			
Age			
18–24	2.869	1.18, 6.99	.020
25–34	1.617	.690, 3.79	.269
35–44	1.938	.780, 4.81	.154
45+	—Ref—		
Past 90-day prescription drug injection ^a	1.647	.928, 2.92	.088
Used a needle someone else used			
Age			
18–24	1.860	.735, 4.71	.190
25–34	1.329	.539, 3.28	.537
35–44	1.314	.500, 3.45	.580
45+	—Ref—		
Past 90-day prescription drug injection ^a	1.230	.672, 2.25	.502

CI = confidence interval; Ref = reference category.

^aReference category is “illicit drug injection only”.

Bolded number indicate significance at $p < .05$.

Results

- ▶ Odds of injection were also higher among in-treatment participants as compared to street drug users.
- ▶ The youngest age group (18-24) also had significantly higher odds of engaging in several HIV risk behaviors including re-using needles and re-using unsterile needles.



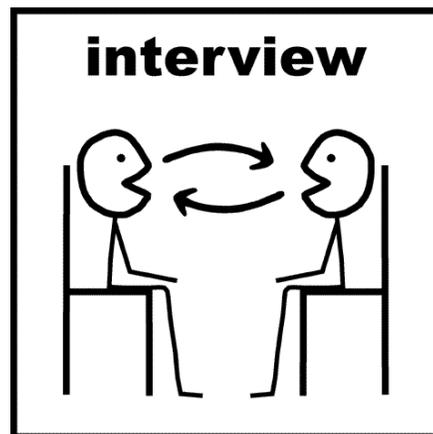
What did these results mean?

- ▶ These quantitative findings helped to inform our next best set of research questions.
 - ▶ How did these young treatment clients begin abusing prescription opioids?
 - ▶ What role did others (i.e. peers or family) play in this process?
 - ▶ How did they learn alternative routes of administration?
 - ▶ How quickly did they become addicted?



Contextualizing our findings

- ▶ Qualitative interviews were conducted with 20 inpatient treatment-based young adults (18-30 years old) who reported recent (past 90 days prior to entering inpatient substance abuse treatment) prescription opioid misuse.
- ▶ Sought to gather more specific and nuanced data related to the opioid misuse trajectory including transitions to alternate routes of administration.



Results

- ▶ Four categories of PO initiation context emerged:
 1. with peers in social or school settings
 2. with fellow employees at work
 3. through family
 4. alone



Results: Initiation Through Social Setting

- ▶ One 22 year old male described initiation orally at age 16:

He came up to me with...like a tin full of Altoids and he's like, "Do you want a mint?" I was like, "Nah, I don't want no fucking mint." And he's like, "No, you want a mint." And I just looked at them and he's like, "Choose wisely." And like I look at them and there's— like Perc fives. And I was like, "Oh okay." So I took those and I remember feeling full. I remember the next class I was in, I was just like dripping sweat, I felt like nauseous as hell. And I remember throwing up in the hallway in a trashcan. . . . after I threw up, I felt really good. Like it was like a release of all that negative energy and I was just like completely calm. . . .



Results: Initiation in Work Context

- ▶ A 22 year old female who worked in the food service industry described being introduced to snorting POs by a co-worker when she was 18:

I was a host at this restaurant, there was this cook that worked there that I'd like talk to all the time and then he brought it up to me and I tried it out in the parking lot with him.... we got on the topic of like parties and like things that we've done, and you just start asking like, "What do you drink or smoke?," like what do you do?....I started talking to him about how I drank a lot in high school and that I smoked weed. Then he was like, "Well have you ever tried?" and I was like no, I actually never tried it and then as he was describing to me what it did for him, how it made you feel, how it helped make your work day and all that better... Then I tried it and I like fell in love with it.... I snorted it, the very first time I ever did it I snorted it, I went straight in and snorted it.... he split it in half, he took half and he let me take half....and I will probably say within about 20 minutes I started feeling the effects from it and I loved it. Like I thought it was the greatest drug ever made.... loved how it made me feel very....calm, very relaxed, like I felt numb to everything. That's what I really liked about it, like nothing was bothering me.



Results: Initiation Through Family

- ▶ One 25 year old female knew her father smoked marijuana and misused prescription medications that were provided to him by a family member. She described initiation by mouth by taking pills from her father's drawer:

I didn't know what they were for a while, so I didn't take them. I knew what the weed was though and I saw it in his drawer...I want to say 9th grade, when I knew what Vicodin and Xanax were, and I knew my dad had them. How did I know what they were? Through friends that were taking them. Like I would see what they looked like and they told me what they were. So I would take a couple Vicodin's and a couple of Xanax, and I give my friend one and me one, and like it felt good and like we felt good....We did Vicodin first.... so then I just loved them. So like I kept on taking, taking them and I knew he couldn't say anything because I was old enough at that point to know that he shouldn't have had them and he couldn't be like where is my Vicodin and Xanax....I loved that I felt more comfortable around people. I felt that I was the cooler person, my attitude on it. I was just happier.



Results: Initiation Through Own Prescription

- ▶ One 25 year old male described that his mom had been monitoring his use following multiple surgeries, but he ended up finding the leftover pills and taking them orally for non-medical purposes:

I lost my scholarship on the second tear during my senior season. I was out for my whole senior season so they just kind of cut me. . . . I came back in town, and I found all my pain killers and started taking them. And I occasionally started using Oxys on the street whenever I could get them. And then once I got that full time job, they just – I had money on me, and so that's what I used it for.



Results: Alternate routes

- ▶ Most respondents explained how they were shown alternate routes of administration by their peers.

As described by a 26 year old male who started abusing POs at age 15:

Cause my friend did it. He sucked the coating off. My friends know how to do it. Like, you don't just learn. . . . it's like a chain, like, someone taught me how. . . so I told them how...and they'll tell four kids how...



Results: Progression

According to a 25 year old male:

- ▶ Like when you first do them you get hot, you get really high. Like your flying! Like I didn't even smoke cigarettes before I started. . . for the first 2 years of use, 2.5 years of my using, you get really high and at first year one you get so high.... You're feeling great and then all of a sudden you need 2. I wasn't getting the feeling I was feeling from the one when I first started, so now I needed two now and now that's double the money. Then it got to a point where you needed 2.5 and then it got to the point where you needed 3. Then it got to the point where you can't, 3 was the most I started doing, but then it gets to the point where you can't afford that anymore. And what a lot of people do is they will go to heroin. I never went to heroin, I was just, ya know I'm looking at this little pill like how can it be this bad, but it is. It is synthetic heroin. . . It got to the point though where I couldn't afford 3. . . it was about \$25 to \$30 a pill. So you're thinking almost spending at least \$50-\$60 bucks to get high and then even sometimes like \$90. Sometimes I spent like \$120 a day. Even if you have a great job you can't afford that, you can't do that. So what I'm getting at is after years of using, like I would do one just to feel normal.. . So it got to the point where I was spending \$60 to \$90 bucks a day, just to function.
- ▶ I never thought it can take so much of you, I never thought that you could become so dependent on something. . . it becomes a mental game too, it takes over your life.



Conclusions

- ▶ Our quantitative data helped to identify emerging drug use trends related to the use of alternate routes of administration among young prescription opioid abusers.
- ▶ Qualitative data provided us with valuable information related to:
 - ▶ The context of prescription opioid initiation
 - ▶ How context impacted route of administration upon initiation
 - ▶ Drug use trajectories
- ▶ This qualitative inquiry can also aid in the development of new large scale projects aimed at examining prescription opioid misuse and its associated health consequences among young adults.



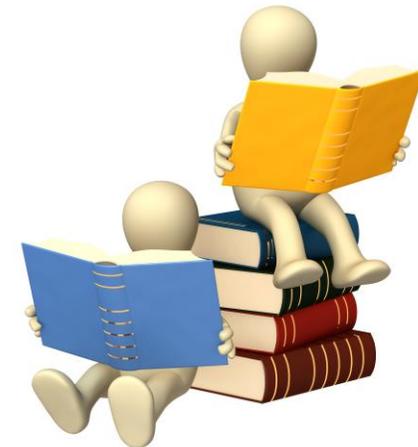
Questions



More information

The original study can be found here:

Surratt, H.L., Kurtz, S.P., Cicero, T.J. (2011). Alternate routes of administration and risk for HIV among prescription opioid abusers. *Journal of Addictive Diseases*, 30, 334-341. doi: 10.1080/10550887.2011.609805





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Thank you!

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