

A LITTLE DAB WILL DO YA: AN EXPLORATION OF FIRST TIME DABBERS ON
YOUTUBE

By

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ABSTRACT

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This thesis project is an in-depth exploratory examination of a rising subculture within cannabis users. With this research project, my aim was to explore and provide insight into the initial experiences of novice cannabis concentrate use as represented on YouTube while they are initiated into this emerging cannabis subculture. Referred to as “dabbing” or “dabs,” this highly potent and concentrated form of cannabis is being utilized by cannabis users to achieve greater highs and effects than those from the traditional cannabis flower. In this study I explored first-time “dabbers” by drawing from social media content in the form of YouTube videos in which self-identified novice dabbers are participating in first-time dab use. Using thematic analysis I explored patterns and trends associated with representations of first-time dab use on YouTube by examining the rituals and social processes associated with a novice user’s initial dab experience. I also explored novice dabbers experiences utilizing the sociological perspectives of Symbolic Interaction and Social Learning Theory related to drug use.

This was done in an effort to understand practices and rituals of dab use, language use, and users response to dabbing when entering this new cannabis subculture.

Keywords: Cannabis, Dabs, Drugs, YouTube, SI, Social Learning Theory, Public Health

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INTRODUCTION

BOOM! This research project all started with an explosion so large it literally blew the roof off a neighboring house and the percussion from the blast rattled my entire neighborhood. I was living in Redding, California, in April, 2015 when a house down the street from my residence exploded. It sounded like a bomb went off. The explosion shook the windows of my house which stood nearly two blocks away. It was later reported by Pike (2015) that the residents were suspected of making butane honey oil (BHO) inside the home and that one man died as a result of the BHO explosion. At the time, I knew little about BHO, which is the main type of concentrate product consumed by dabbers. I thought “dabbing” was a school-yard dance move. Since then, I’ve noticed a rise in popularity of dabs in both the media and cannabis culture, with media attention and public health concerns focused specifically on cannabis dabs.

There have been numerous news stories about the dangers of dab manufacturing which include explosions such as the one occurring in my own neighborhood (Dobnik 2016; Greenson 2018; Pike 2015; and Schneider 2016;). National and local news media in the United States have also noted rising popularity of “dabbing” among cannabis users (Nir, 2016; Ward 2017) as well as Walmart’s role in dab manufacturing, which includes the sales of a hydraulic press built to produce cannabis rosin/dabs (Ferrara 2017). Changes in cannabis legalization have led to increased interest and consumption of cannabis concentrates and extracts in the United States. For example in Washington

State, Smart et al. (2017) found a 149 percent increase in cannabis market share for extracts between October 2014 and September 2016, comprising 21 percent of total cannabis sales in Washington State. Although there has been an increase in media coverage on BHO and dabbing, there has been little empirical/academic research on this topic. With this research project, I sought to help fill this gap in research.

Following the explosion and having little knowledge of BHO and dabs, I wanted to learn more about this emergent form of cannabis use. I signed-in to YouTube to learn more about what caused the explosion down the street. I chose to sign-in to YouTube because only after signing-in was I allowed to view videos that were age-restricted by YouTube. I searched “BHO” and “dabs” and what I found was thousands of videos on how to make BHO and thousands more videos of people taking dabs on camera. I started to watch some of the videos and what I witnessed was absolutely fascinating. One of the videos depicted a man who took a huge dab and started coughing extremely hard before going outside and vomiting. While he was vomiting in the backyard, his friends teased and made fun of him for acting like a “rookie.” This piqued my curiosity as a researcher. I asked myself: if experienced dabbers are showing such extreme physical reactions to dabbing, what are the actual “rookies” (or novice dabbers) experiences when using for the first time?

After reviewing the academic literature on cannabis oil and extracts, I found very little academic research that had been published on dabbing. It occurred to me then that we know very little about this new form of cannabis consumption and the new cannabis

subculture that is developing from this select type of use. Today much is known about cannabis culture (August 2012; Holm, Sandberg, and Kolind 2014; Pedersen 2014; and Sandberg 2013) and cannabis flower use (Becker 1953; Gilbert and Diverdi 2018; Golub, Johnson, Dunlap, and Sifaneck 2004) but little is known about this emergent subculture involving cannabis oil by academic researchers. Loflin and Earleywine (2014) found that dab users seek out this cannabis subculture because they want stronger effects and highs than what they experience with cannabis flower. Since this is the first point of contact and experience that novice dabbers have with concentrated cannabis, I sought out first-time dabbers for my study.

The dab-using population tends to be younger adults in their early to mid-twenties (Daniulaityte et al. 2017; Sagar et al. 2018). The younger adult population, consisting of those aged 18-24, also uses social media more frequently than any age group in the US (Smith and Anderson 2018). With this in mind, it made sense for me to utilize social media platforms to analyze and assess this rising subculture. This data comprised the basic foundation of inquiry for my study. I chose YouTube as my research data source because it is a widely used platform that hosts ample amount of dab videos that are available to the general public. Although the videos consisted of previously recorded events, the representations of first time dabbers posted on YouTube provide insight into actual first-time dab users' experiences during their initial use of the drug. As a result, I decided to use observational research techniques in the form of secondary data collection and utilizing the analysis of video content, language and discourse used, and the

comments section below each video, instead of doing primary data collection in the form of a survey or interviews.

My thesis is the first research project on dabbing to establish a relationship/link between social theory and cannabis dabs or dabbing. There has been little empirical research done to date on dabbing. Previous studies on dabbing were quantitative and statistical in nature, these studies offer little insight into the qualitative description and depth of the subculture associated with cannabis extracts and dabbing. With this study, I sought to fill the gap of existing literature utilizing social theory and applying qualitative research methods to explain the experiences of first-time dabbers.

Becker (1953) posited novice cannabis users go through a framework of social learning that is involved with “becoming a marijuana user” to understand how to use cannabis flower/joints. However, cannabis dabs are a newly developing subculture which are different than cannabis flower and have not been analyzed with social learning theory or connected to any social theory via empirical or academic research. This research project fills that gap. My research project is important to sociology because it establishes that there are examples of symbolic interaction and social learning theory that are prevalent within the novice dab community on YouTube.

One concept I found in this study related to symbolic interaction include negotiated meaning where novice users are using words like “scared” “dying” and “killing” as objects of interpretation to ask for smaller sized dabs from experienced users in an effort to avoid negative reactions to dabbing. In the research, I also saw examples

social learning theory related to observational learning where users are engaging with each other over the internet/YouTube and learning about dabbing by watching videos to create understanding of the objects involved with cannabis dabbing and to learn proper smoking and subcultural techniques.

The increase in use of dabs amongst the cannabis community shows a need to better understand the experiences of first-time users when dabbing. This is also the first research project to examine and explore first-time dab users specifically. This is important because researchers (Loflin and Earleywine 2014; and Stogner and Miller 2015) have found particular health concerns to novice dabbers due to their lack of understanding of dabs and dab use equipment, such as burning themselves on hot equipment due to the method of delivery associated with dabbing.

Despite calls to research novice dabbers (Nierengarten 2016; Stogner and Miller 2015), there are currently no research projects exploring initial dab use specifically. Little is known about the experiences of first-time dabbers as they enter this emerging cannabis subculture. This project will conduct an exploratory analysis of first-time dab users in an effort to expand what researchers currently know about dabbing, especially as it pertains to first-time use.

A review of the literature on cannabis dabs, social media/YouTube, and the social theory related to representations of first time dabbing experiences on YouTube will also be provided in the second section. This review offers us insight into current knowledge and theory related to dabs, as well as how social media users are engaging over the

internet. Social theory and processes related to novice dab users engaging in their first-time dabbing experiences will be highlighted. The third section will explain the research methods used in my study, while section four presents the study's findings, outlining and discussing the themes discovered from video analysis of first-time dab users. Finally, section five summarizes this research project, identifying its limitations and offers recommendations for future research.

This research project asks what first time dabber experiences are like as they are represented on YouTube? This research project also asks if YouTube is a viable site for the normalization and socialization of uninitiated dabbers to learn about this emergent subculture?

DABBING: BACKGROUND AND PRIMER

While hash oil has existed for many years, the concentrates being produced and consumed today are of much higher potency and can consist of up to as much as 90 percent THC or tetrahydrocannabinol.¹ one of many different cannabinoids in the cannabis plant and one of the main active ingredients that makes cannabis users feel “high.” The process of producing cannabis oil or “dabs” was originally known as “smash” and it first appeared in the United States (U.S.) in the late 1960’s. It was thought to be produced in Vietnam by U.S. soldiers, who used solvents such as acetone or petrol, to “smash” the cannabinoids together, and “smoked using a glass pipe in which it was vaporized over a low flame or smeared on a cigarette rolling paper or impregnated with tobacco” (Booth 2003:38). Today the process of inhalation and ingestion of dabs can be achieved in many forms, but the main source of consumption for dabs is vaporization. While methods of delivery and routes of administration have changed, vaporizing is not a new practice in cannabis use and has been employed by cannabis users for centuries.

Vaporizing cannabis is an ancient practice which dates back to Egypt in 5th century B.C., where Herodotus of Halicarnassus, noted that after a funeral of a high status person, the Scythians purged themselves in a pit covered with woolen mats and heated

¹ Tetrahydrocannabinol or THC, is one of many different bioactive cannabinoids in the cannabis plant and one of the main active ingredients that makes users feel “high” when consuming cannabis.

stones. “Once in the pit they took the seeds of hemp and cast them upon the red-hot stones where they smoldered and gave off more steam than a Greek steam bath: transported by the fumes, they shouted their joy” (Booth 2003:71). While vaporizing cannabis has been around for thousands of years, “dabbing” which consists of heating a nail and vaporizing the cannabis extract for inhalation seems to have taken on considerable popularity in recent years. Drug historians and drug policy scholars have noted that vaporization and use of “dabs” are becoming much more prevalent within the cannabis community (Loflin and Earleywine 2014).

“Dab” is a colloquial name used to describe concentrated cannabis extracts that can be applied to a heated platform (called a “nail”) and then vaporized or incinerated for consumption via inhalation by cannabis users (Loflin and Earleywine 2014). They are very high in psychoactive substances which consist of different bioactive compounds called cannabinoids (Booth 2003), which react with the brain and body in different ways. Dabs are highly enriched with cannabinoids, and their concentration is typically 15 to 30 times higher cannabis flower or buds (Varlet et al. 2016). Traditional forms of consuming cannabis consist of smoking cannabis flower or hashish when rolled into a joint, put into a pipe, bong, or vaporizer, among other smoking equipment. Cannabis dab use is different from previous methods of cannabis ingestion because of the extreme heat and high temperatures necessary to vaporize this highly potent concentrated cannabis and enable users to achieve the maximum effect. Hence, dabs provide a way to consume large

amounts of THC and other cannabinoids such as cannabidiol (CBD) and terpenes, with substantially less smoke (Raber, Elzinga, and Kaplan 2015).

Dab production

The process of creating dabs or cannabis extracts is done by separating the cannabinoids, trichomes, and terpenes from the actual green plant material itself, consisting of stems, buds, and leaves. This can be achieved in multiple forms of extraction. Some of these means of concentration and extraction are with “pressed” keif or rosin; Super-Critical Fluid Extraction (CFE) by using propane, Co2, nitrogen, or other liquid gasses; and by alcohol (isopropyl or ethanol) evaporation, among others (Rosenthal 2014). The sticky residue which can vary in color, taste, potency, and texture depending on various factors of production, is called “dabs.” Dabs are sometimes referred to as Butane Honey Oil or Butane Hash Oil, and “BHO” as well. even though not all dabs are produced using butane or any type of gas or solvent for that matter. However, there are many different types and names for dabs which can refer to processes of production, consistency, quality, and texture of product such as wax, budder, crumble, shatter, oil, live-resin, dry-rosin, clear, sauce, and distillate, among others (Rosenthal 2014).



Figure 1² Types of Cannabis Concentrates

While hash oil and cannabis concentrates in the form of hashish and other substances are not new to the cannabis industry, this route of administration and method of delivery that consists of heating a nail and fully incinerating the cannabis concentrate for inhalation seems to have taken on considerable popularity in recent years (Varlet et al. 2016). The rise in popularity of dabs also brought new routes of administration, and types of products available on the market are being created specifically for this niche of cannabis consumers. Cannabis concentrates can be utilized and ingested in many forms, such as through vape pens, cooked into edibles, and applied to cannabis flower and combusted simultaneously.

² AZ Marijuana Blog, accessed June 2, 2018, <https://azmarijuana.com/images/the-cannabis-concentrates-guide/>

Processes of dabbing

The term “dabbing” refers to the process of applying a dab to a heated nail for combustion and consumption. Dabbing consists of vaporizing cannabis extracts at 300-400 °F on a hot nail and then inhaling the vapors that arise through a specialized pipe, usually called a dab rig (Varlet et al. 2016). While dab rigs are built specifically for cannabis concentrate use, attachments have been created as well to convert waterpipes or bongs into dab rigs. Dabs are typically placed upon the end or tip of a titanium or glass rod, called a “dabber.” The dab is then placed on the hot nail by using this tool/equipment so users don’t burn themselves or misplace the dab on the heated nail, essentially wasting their hit.

The “nail” or hot surface/platform which the dab will be placed upon is generally made of glass, quartz, ceramic material, or titanium (Rosenthal 2014). These dab nails are usually heated via a blow torch, either butane or propane fueled. These torches can look like a crème brulee torch, a refillable butane lighter with torch flame, or just a standard propane/blow torch from a hardware store. Recently, media has made reference to dabbing as “the crack of pot” because of the acceleration of highs and the method of use involving a blow torch (Cannama 2017). Powder cocaine that is snorted is considered a much more mellow high when compared to rock or “crack” cocaine that can be heated and freebased on tinfoil for greater effect. Similarly, cannabis dabs are a method of cannabis consumption in which the potency is greater and the effect of the drug is

heightened when compared to cannabis flower use. The methods of consumption for dabs also differ from traditional cannabis use. Cannabis dabs are altered and vaporized then used in a way that is similar to some forms of crack and methamphetamine use, where dab users utilize a “crack torch” to heat a platform to inhale the cannabis vapors that arise.

Users can also use an electronic heating source, called an “e-nail” in which a power source runs electricity through a current that leads to a coil which is heated via the electric current provided by the power source. The heated coil or element is then set to a desired temperature and placed around the nail. After enough time, the heat transfers over to the nail itself and keeps the nail at a stable temperature (Rosenthal 2014). This allows the user to adjust the temperature of the nail and to take dabs at a stable and steady temperature.

Once the dab is placed on the heated nail, the high temperature causes the cannabis concentrates to melt and decarboxylate (which means the THC and other cannabinoids become active from the change in temperature). The vapor that arises from the nail has large amounts of active THC and other cannabinoids, within the vapor itself. The user inhales the vapor via a method of delivery, (usually a dab rig, or waterpipe with attachments built specifically for dabbing) which captures the vapors that arise from the nail and (usually) filter the vapor through water before inhaling the vapors into the lungs allowing the bioactive reactions with the cannabinoids to take place. This process or similar processes to it, are what allow dab users to get high, or achieve desired effect.

The expansion of cannabis legalization has seen many states such as California, Colorado, Oregon, and Washington, that allow for the consumption of cannabis and dabs legally for both medical and recreational purposes. While other states have various types of medical legalization in place, it is up to each individual state to decide how to police cannabis as directed by legislation. However, while select states have enacted legislation that allows cannabis and dab use to be legal, it should be noted that cannabis and cannabis consumption in all forms is illegal in the eyes of the federal government, regardless of whether you live in a legal state or not.

LITERATURE REVIEW

In this section I outline the existing scholarly literature on drug use studies and dabbing to identify any gaps in research and gain greater perspective into current schools of thought on the subject. I address the prior research on social media, YouTube, online engagement, and learning via the internet. Finally, I will address research in the fields of symbolic interactionism and social learning theory, as well as the application of these theories to my study.

Drug Use Studies

The definition of what a drug is varies among many factors in the United States. Where most would agree that methamphetamine and heroin are drugs, not all would agree that coffee or Tylenol are “drugs.” Faupel, Weaver, and Corzine (2014) posit that “the overwhelming majority of Americans, adolescents and older, use substances that have a psychoactive effect and can, from a biochemical perspective, be considered ‘drugs’” (Faupel et al. 2014:3). The difference between a needle to the vein and drinking a cup of coffee may be significant but this shows that the definition of “drugs” in the United States is subjective and based in social construct. This construct being the ability to define a thing as it relates to the social and cultural factors that can influence perceptions on what is considered a drug and what is not. Sociologist Erich Goode (1999: 58) highlights this subjectivity while he defines the concept of drugs, “a cultural artifact,

a social fabrication, applied to certain types of substances in specific contexts or settings. A drug is something that has been defined by a certain segment of the society as a drug.”

When studying the effects drugs have on people we are really talking about the different kinds of psychoactive effects that are associated with drug use. Faupel et al. (2014:10) state that the effects surrounding drug use can be and are measured in three different ways: the objective effects, the chronic effects, and the subjective effects of drug use. Objective effects, such as the time it takes to run a drunk mile, are observable and measurable. Chronic effects, such as lung cancer and addiction, develop and accumulate over time. Subjective effects are those which cannot be measured and must be grounded in the experiential reality of the user. There are many factors that influence each of the subjective ratings that drug users experience. These are including but not limited to: the users mind set headed into use, use setting, drug type, drug dosage, drug potency, route of administration, drug tolerance, other drug use, and drug interaction, among other things (Faupel et al. 2014).

These influential factors in a user’s drug experience, felt alone or in accumulation, can affect how users interpret each drug event, experience, and the subjective psychoactive effects associated with drug use. Faupel et al. (2014) provide a summary of those additional factors: 1) Users feel different effects based on the intensity and duration of the drug episode which will vary with different routes of administration and 2) Dosage describes a level of efficacy or high/effect that is achieved when using drugs. While most people seek a therapeutic or effective dose, there are also over-doses and

lethal doses. Potency refers to the strength of a drug while purity refers to the percentage of the substance that is actually the drug itself. Drug tolerance is the resistance that one builds up over time with continued drug use that develops in some users. Drug interaction speaks to the ways drugs can be felt when mixed in combination, which can be very dangerous due to the ways those drugs work when mixed with other substances, which can produce even greater (sometimes) undesired and unintentional effect. When taken into consideration we can better understand a user's drug experience and how definitions of that experience can change.

Zinberg (1986) looked at how peoples relation to drug use could change according to the type of drug being used (including its method for ingestion), their mindset during drug use, and their social setting of drug use. By developing definitions for an understanding of the complexities of interactions between a person, drug effects, and social environment, He showed why drugs with addictive properties affect a person differently at different times, and how drugs affect people in various ways. Drug refers to the substance or route of administration being used for effect. Set refers to the expectations of a user and can affect whether a user gets high as well as the ability to define being high as an enjoyable experience. Setting is the place a drug is used, such as the physical surroundings and/or the presence of others. Drug, set, and setting, can all have an effect on the subjective definition of being "high" for drug users.

Zinberg (1986) also found that all drug users, to a certain extent, ritualize their drug use and that controlled use is mainly supported by emerging drug using rituals and

social sanctions. According to Zingberg and Harding (1977) the term drug ritual refers to the stylized and prescribed behavior surrounding the use of a drug. Ritualized behavior of drug use may include methods of acquiring, and administering the drug, selection of physical and social settings for use, activities after the drug has been administered, and methods of preventing unwanted drug effects. This section shows that drug use is a highly subjective cultural experience in which the user may be influenced by multiple factors which can have implications to drug users perception of the drug or the drug using experience as a whole.

Understanding Dabs

In the United States, media reports show that dab use has been gaining in popularity within the cannabis community (Nir 2016; and Ward 2017). Yet with this rise in popularity and amount of use, researchers and academics still know very little about this potent new form of cannabis. Highlighting this lack of understanding is Nierengarten (2016), who studied dabbing and risks associated with youth consumptions. Nierengarten found that dabbing poses heightened risks for adolescents who use cannabis where particular concern has been shown regarding cannabis and its effects on the developing brain. Nierengarten (2016) also found that there is a “dearth of research on the safety of dabbing, particularly in novice users” (2016:34). These findings are significant when considering the current research project because social media is used heavily by

adolescents in the United States and, considering the lack of (needed) research on the safety of dabbing and novice users, YouTube could be a place for adolescent novice dabbers to socialize themselves with this particular cannabis subculture.

As the landscape of cannabis legalization changed in the early 2000s, forms of cannabis delivery also started to change. These changes led cannabis consumers to seek out more potent and concentrated cannabis substances. The cannabis subculture of dabbing emerged during this era. One of the first scholars to study this new phenomenon was Sagar et al. (2018), who studied dab use across the United States via a national web survey. The authors found that cannabis concentrate (dab) use amongst cannabis users is becoming a more popular practice. The authors also found that cannabis consumers don't necessarily chose dabs over flower for the positive effects but rather appear to choose dabs for experimentation (Sagar et al. 2018). This shows that users may not be seeking a particular "high" or experience, instead they are seeking to experiment with and experience this rising cannabis subculture.

Health impacts of dabbing

Meehan-Atrash, Lou, and Strongin, (2017) studied the temperature at which terpenes (a type of extract derived from cannabinoids) decarboxylate when placed upon a dab nail. The authors also found that nail temperatures determine whether harmful cancer-causing chemicals such as methacrolein and benzene, are released when dabs are placed on the hot nail. The researchers found that when heated above 600°F, terpenes can

produce methacrolein and benzene, both of which are known cancer causing carcinogens. This is due to the oxidative liability of specific cannabinoids which combust at different temperatures (Meehan-Atrash, Lou, and Strongin 2017). The higher temperature of the nail when users take their dabs (above 600°F), the higher the concern for human health.

Scholars have explored the impact of changing legislation on adolescent drug use. Nierengarten (2016) studied dabbing and dabbing's possible risks to adolescent users. Finding that dabbing poses heightened risks for adolescents who use cannabis; where particular concern has been shown regarding cannabis and its effects on the developing brain. Stogner and Miller (2015) assess the dangers that are known to be related to dabbing. They found that recent changes in cannabis policy have likely facilitated youth access to dabs. They also posit that the younger population could be at risk to health risks associated with dabbing such as accidental injury and burns from the extreme temperatures that users dab at. The authors also reported long term health risks associated with inhaling off gassing solder, rust form oxidized metal parts (such as titanium nails), and other harmful carcinogens when dabbing at higher temperatures. Stogner and Miller (2015) also posit that some of the possible harms associated with dabbing are potentially moderated in states with regulated production of cannabis for medicinal or recreational purposes because there is less incentive for amateur production.

Fairman, Furr-Holden, and Johnson (2018) studied the use patterns of cannabis, alcohol and tobacco users and found that when participants used cannabis first, before trying tobacco or alcohol, that these participants were more susceptible to heavy cannabis

use in the future. They found that users who tried cannabis first, were also at greater risk for cannabis use disorder. Additional research based on case studies have also shown risks of psychosis or psychotic episodes associated with dabbing (Pierre, Gandal, and Son 2016). Meanwhile risk of accidents, falls, and loss of consciousness are hypothesized to be more common after dabbing than with traditional cannabis use (Stogner and Miller 2015). Case studies have also shown cardiotoxicity and lung problems possibly associated with dab use (Rickner et al., 2017; Stahlmann et al. 2017). Users who use a torch may be at risk for burns associated with accidents and the hot torch and surfaces associated with dab use (Loflin and Earleywine 2014). Public health concerns also exist around the explosions and burns associated with illegal cannabis extraction production (Stogner and Miller 2015).

Mallory Loflin and Mitch Earleywine, in their seminal study on dabs (2014), show particular concern surrounding the growth of dab use, due to the high levels of THC and other cannabinoids in dabbing. The authors posit that dab users risk building up a tolerance and even report having withdrawals to dabs, in turn creating a dependence on dabbing to be able to achieve desired effect. They also found users that prefer dabs over cannabis flower choose dabs because fewer hits were necessary to achieve desired effect, the effects were stronger, and the effects lasted longer when compared to traditional cannabis flower. This suggested to the researchers that preference for dabbing could be due to its potential medical efficacy, as perceived by users in their study (Loflin and Earleywine 2014).

Loflin and Earleywine (2014) discovered that dabbing and its rise to popularity seem to correspond with the expansion of cannabis legalization, as dabs are now available in medical dispensaries, making market saturation of the product much easier than in previous historical underground cannabis markets. Dab users report use for more than just therapeutic reasons, meaning although there could be medical application to dabbing; recreational use is prevalent (Loflin and Earleywine 2014). The majority of medical cannabis users in their study sample reported preferring vaporizing cannabis flower to the use of dabs for medical application and amongst all participants, cannabis flower use was seen as “safer” than dab use. They state that “the risk of tolerance and withdrawal for dabbers is consistent with route of administration research that says an increase in the rate of absorption of the same drugs (from smoking flower to vaporizing or combusting high rates of concentrated THC in dabs) can lead to rapid rates of dependency” (2014:50).

Raber, Elzinga, and Kaplan (2015) examined the issue of contaminants present in dabs. Their research found that pesticide residues and residual solvents³ are left behind by producers in the cannabis extraction processes and then vaporized and inhaled by dab users at extremely high temperatures. Their research looked at 57 different concentrate

³ Residual solvents refers to any solvents that are left behind in the dab making process such as butane, propane, and Co2, among others, which can be harmful if left behind in the finished product and ingested.

products submitted by medical cannabis users in California and the concentrates ranged between 24-76 percent THC, much higher than previous study of cannabis flower and THC levels (Raber et al. 2015).

The researchers found that eighty-three percent (83 percent) of all samples tested in their study showed evidence of residual solvents such as butane and propane (Raber et al. 2015). The authors also found that one third (33%) of all products had some form of pesticide in them. From this we can see that a large percentage of dabs on the market have not been thoroughly “purged” of solvents used to produce the dabs. The high presence of pesticides in dabs could be due to cannabis crops getting some disease like powder mold or spider mites, and producers are using the tainted product, which has been saturated in pesticides, to produce dabs.

Raber et al. (2015) show concerns regarding the illegal/street market and the lack of testing from products purchased via street dealers outside of legal markets. The legal market has regulations and products must be tested and pass inspection before being provided to users. The street market testing is generally not done and because of the lack of testing harmful contaminants and solvents are probably available at higher levels which will then be ingested by users during use. Regardless of marketplace, Raber et al. indicate that there are real health risks related to the consumption of contaminants and solvents left behind in dab products.

Medical applications of dabbing

Considerations for health applications should also be made in relation to cannabis concentrates and possible health benefits for medical application. Research on health applications for cannabis use for health is lacking when considering the amount of research on the negative health impacts of dab use. As stated earlier, dabs provide a way for cannabis users to ingest concentrated cannabinoids at increased levels with radically less smoke. So instead of a user having to smoke a whole joint to achieve needed medical relief, by using dabs the same amount of THC, CBDs, or other cannabinoids, can be inhaled in a single hit. As a result fewer hits are needed to achieve the same amount of, or desired, effect. Despite the U.S. federal government's stance on the medical benefits of cannabis, which is that there are no medical benefits at all. There is evidence of medical applications for cannabis. The health benefits and medical understanding surrounding cannabinoids such as cannabidiol (CBDs) have been known for some time. O'Connell, Gloss, and Devinsky (2017) found that CBDs provide relief to patients with treatment resistant epilepsy. On June 25, 2018 the United States Food and Drug Administration (FDA) acknowledged the medical application of CBD's by official approving of a cannabidiol based medication called Epidiolex, an oral CBD solution that provides relief to patients with treatment resistant epilepsy (FDA 2018). If a patient is in need of high amounts of cannabinoids or cannabidiol to achieve medical efficacy, dab users rapid

response to concentrated cannabinoids may provide relief in ways traditional cannabis flower, or alternative routes of administration, cannot.

Reiman, Welty, and Solomon, (2017) show that cannabis has an application for a substitute of opioid based pain medication for people living with chronic conditions. According to the National Institute on Drug Abuse (NIDA) in 2018 the United States is in the wake of the opioid overdose crisis, where 115 people die every single day from overdose. Krishnan (2016) shows that highly potent concentrated cannabis extracts such as dabs and Rick Simpson Oil (RSO) are being used to help opioid addicts going through withdrawals and as a means to continually fight the addiction and withdrawal pains associated with stopping opioid use. The author states this method of rehabilitation may not be curing addiction, but rather users are just switching out one substance or drug for another. However, Krishnan also considers that there have been no reported deaths due to overdosing on cannabis and states that further research is warranted.

Social Media and YouTube

Dab videos are a popular genre of YouTube videos, with new content related to dabbing uploaded daily. Videos related to dabbing show users taking dabs, talking about dab experiences, and occasionally marketing select products and strains that they use on the videos among other things. YouTube is a social media platform where users can upload, view, and share video content made by other users free of charge. It provides a

place for users all over the world to connect, share content, and engage with one another via the information shared in the videos. YouTube provides a global medium where users may interact and participate with one another regardless of location, as long as you have the internet.

Chau (2010) researched YouTube as a participatory culture and found that there's been an explosion of youth to virtual online spaces. According to the author, YouTube has become a portal for the younger generation to bond with peers, engage in public discourse, explore identity and acquire new skills. He elaborates on the prospects of exchanging knowledge via YouTube when he states "By merging the technical aspects of youth as media creators with the social aspects of youth as social networkers, new media platforms such as YouTube offer a participatory culture in which to develop, interact, and learn" (2010:65). Chau found that YouTube is a site for informal mentorship and that one of the most popular categories of user content are how-to videos on a variety of topics. YouTube users are visiting the site to exchange ideas, information, and to learn things like how to fix your car, and even how to take a dab.

This connects to the current research project because novice dabbers who have never dabbled or been around people who are dabbing are using YouTube to learn and interact with dabbers in participatory culture. By utilizing the electronic medium and watching videos, users are engaging with others and learning how to use dabs, exploring their identity as dab users. YouTube users could be deciding whether or not to engage in this specific cannabis culture by watching the experiences of others and from watching

others engage in this activity users could also be acquiring new skills related to first time dabbing.

YouTube use in 2018

Chenail (2011) reviewed YouTube videos to assess user generated videos viability as learning resources. Th author found that YouTube offers researchers a unique reservoir of video clips from which researchers can gain insight. He calls researchers to use YouTube to utilize the social media platform and the content that appears on the videos to improve learning opportunities and resources available to qualitative researchers and knowledge seekers. A number of scholars have studied this popular social media platform. The types of qualitative research that have been done on YouTube center around PTSD (Salzmann-Erikson and Hicdurmaz 2016), drug use and withdrawal (Fixsen and Ridge 2017), mental health and depression (Naslund et al. 2014), and Parkinson's disease information (Al-Busaidi, Anderson, and Alamri 2017).

A report done for Pew Research Center by Smith and Anderson (2018), found that YouTube was the most popular platform reported used when compared to all age groups and across all social media platforms. They reported that a majority of Americans use YouTube (73 percent), leading all other social media platforms in this survey (Smith and Anderson 2018). Among genders, 75 percent of adult males and 72 percent of adult females in the United States say they use YouTube. Younger Americans (especially those ages 18 to 24) stand out for embracing a variety of platforms and using them frequently.

YouTube is used by nearly three-quarters of U.S. adults and 94 percent of 18-24 year olds, and the typical American uses three out of eight major platforms measured for the survey (Smith and Anderson 2018).

While YouTube was the most popular platform used, respondents reported visiting the site at lower rates of frequency, when compared to other top social media platforms. Where between the two leading platforms, 73 percent of Americans report using YouTube compared to 68 percent of Americans who report using Facebook.. The authors state “YouTube is a video sharing site that contains many social elements, although it is not considered a traditional social media platform” (Smith and Anderson 2018). YouTube is not a traditional social media platform but it is a place for people to interact or engage, whether actively networking on the platform with other users via clicks and comments or just passively watching videos.

Dab research and social media

Cannabis researchers have recently started looking at social media and using web-based surveys as a means of studying cannabis epidemiology and cannabis use practices (Borodovsky, Marsch, and Budney 2018). A review of the research specifically on dabbing where participants have been gathered via the internet and social media is presented in this section. This section explores what researchers have reported as reasons for why cannabis users are initiating first time dab use and to expand what we know about dabbing subculture

In regards to reasons why users engage in dab use, Hall and Degenhardt, (2015) found that BHO users, were much more likely to report using cannabis for medical purposes and that BHO users generally obtained their product via prescription. This was consistent with Chan et al.'s (2017) self-medication hypothesis, where Chan et al. stated that BHO users are consuming cannabis for purposes of self-medication. Previous research (Miller, Stogner, and Miller 2015) has shown that BHO users report descriptions of the experience as positive and pleasurable. Chan et al. (2017) found that participants who had experience with BHO and high potency cannabis flower showed effect profiles that were very similar to each other. This shows that the highs are reported as being very similar to one another. Yet, BHO users reported more negative experiences, such as being restless and anxious, and feeling forgetful when stoned. Meanwhile, participants in their study also reported fewer positive experiences with BHO such as feeling less relaxed. Krauss et al.'s "Displays of dabbing marijuana extracts on YouTube" (2015) provides insight related to the reasons why dab users engage in dab use and draws comparisons between high grade cannabis and dabs and the differences in how users report experiences related to these highly potent concentrated cannabis products.

While there have been some research studies performed on dabs and dabbing via web-surveys, social media, and online content (Chan et al. 2017; Daniulaityte et al. 2015; and Zhang et al. 2016). Krauss et al. (2015) are the only researchers to date that have done YouTube analysis of dabbing. Krauss' research is important to understanding

representations of dab use on YouTube and therefore will be covered in-depth as it relates to this particular study. The purpose of Krauss' (2015) study was to explore video content related to dabbing on YouTube. The researchers sought to gather an understanding of the types of dab videos and content associated with dabbing on YouTube by exploring all the videos they found from an extensive search on YouTube related to dabbing.

Krauss et al. (2015) employed content analysis to explore the videos of people dabbing on YouTube. By watching video and listening to the audio provided through YouTube videos, The authors were able to code portions of the video to collect data via a custom-built code sheet designed by pre-coding videos. The researchers then developed themes related to these codes to be used for analysis. The purpose of their study was to explore the content of dabbing-related videos on YouTube, to provide an exploratory understanding of the social media platform and this rising cannabis subculture. Krauss et al. (2015) found that 89 percent of the videos showed someone dabbing, this means that a majority of videos on YouTube are of actual dab using experiences and not just stories or recollections of first time dab use.

Additionally, 61 percent of videos showed users using more than one dab, ranging between 2 and 50 hits of cannabis extracts amongst multiple hit users (Krauss et al. 2015). This means that over half of the dab videos on YouTube show people ingesting large amounts of cannabinoids in single settings. While the actual titration or amount of cannabinoids ingested during use could not be measured, taking multiple and consecutive

hits could lead to higher levels of tolerance and possible withdrawal associated with dab use when compared to cannabis flower users as shown by Loflin and Earleywine (2014).

Krauss and colleagues (2015) show concern surrounding the normalization of YouTube videos and dab use. Their research shows that there is an abundance of content related to dabbing on YouTube. YouTube is a dominant form of media consumption in the United States, especially for youth. According to the Pew Internet and American Life Project, YouTube is now used by nearly three-quarters of U.S. adults and 94% of 18- to 24-year-olds (Smith and Anderson 2018). The normalization of drug use is defined as a process whereby drug use becomes less stigmatized and more accepted as normative behavior. It is important to note that normalization of drug use does not correlate with addiction per se (Peele 2014). Rather, normalization describes that the recreational use of drugs have become an everyday, commonplace occurrence of life for some young people in their pursuits of leisure and pleasure.

According to the National Institute on Drug Abuse (NIDA 2018) drug use at an early age is an important predictor of development of a substance use disorder later. The majority of those who have a substance use disorder started using before age 18 and developed their disorder by age 20. The likelihood of developing a substance use disorder is greatest for those who begin use in their early teens (NIDA 2018).

The normalization of dabs may also lead to more users trying or experimenting with dabs than would have otherwise. This is problematic because it creates an opportunity for higher levels of use amongst cannabis users and within the general non-

dab or drug using population, especially when considering the overlapping risks to younger drug users. When normalization takes effect, drug use becomes tolerated by both drug users and non-drug users alike. Finally, normalizing drug use includes the use of drugs becoming socially and culturally accepted by many members of the non-drug using population and increasingly culturally embedded in wider society. This could also prove to be problematic as dab use continues to become more popular amongst the drug using population especially when considering how little is currently known about dabs within academic and empirical research.

The researchers found that young people are greatly influenced by their peers and social media. Krauss et al. (2015) state that “it could be that watching individuals (who are skilled) at dabbing on YouTube promotes dab using behavior and/or shifts attitudes about dabbing toward use for individuals who are contemplating initiation. Thus, while dabbing appears to be a lesser known way of ingesting marijuana, it may be that YouTube videos about dabbing are helping to generate more interest in this behavior” (Krauss et al. 2015:50). To address the concerns around normalization and interest in dabbing, this research project seeks to explore the ways in which users are learning how to use dabs and dabbing techniques through social processes via representations of first time dabbers on YouTube.

Social Theory

This research project seeks to explore what first-time dab user experiences are like by analyzing the populations, equipment, and the discourse involved with first time dab use on YouTube. This research project seeks to analyze first time use specifically because of the lack of understanding and experience novice users have in navigating this new potent form of concentrated cannabis. Currently there is not much known about this aspect of cannabis use. This research project hopes to explore dabbing and possibly uncover some meaning and motivations surrounding this rapidly rising and popular form of cannabis delivery. By analyzing videos and developing themes surrounding first time dab use, I hope to add texture and depth to the dab research that has already been done to date and give future researchers insight into this rapidly rising subculture within cannabis.

Symbolic Interaction (SI)

Symbolic Interaction (SI), a sociological theory that seeks to explain how individuals create meaning and constructions of their subjective reality. In SI, meaning is subjective and interpreted through interactions with objects, and people. SI operates on a basic premise of a cycle of meaning. The idea that people act in response to the meaning that signs and social signals hold for them. A red light, for example, may have multiple meanings to different groups in society. By acting on perceptions of the social world in

this way and with these meanings appearing to be self-constituting, rather than unconvincingly constructed by ourselves or others. Everything is interpretable within this framework where even “facts” (such as a red light meaning “stop”) are up for debate and interpretation.

SI is a process in which people create meaning and understanding through repeated and meaningful interactions with people and objects to understand the meaning people attach to dab use. For this research project, the insights of SI provide me with a foundation for understanding how novice dab users learn about this new cannabis subculture and what they experience first time dab use. Mead (1934) is credited for the foundational work of SI. His work posits that objects (including the self) have meaning for a person, but only as they assign that meaning to them. People develop an understanding of what the object is, how it can be used, and familiarize themselves to the object through a social process. Meaning for the person is only as they understand what has been presented to them in the course of interacting with an object. What this means is that the meaning of an object is an acquired process that’s gathered through interaction, observation, or explanation.

Howard Becker (1953, 1955, 1967) conducted multiple research projects assessing deviant careers and cannabis use. He researched first-time cannabis users and what their motivations were to continue cannabis use after trying it. Becker posits that there is subjectivity and social process involved with the definition of being “high.” In relation to user motivation and socialization of the drug using experience Becker states,

The presence of a given kind of behavior (during initial drug use) is the result of a sequence of social experiences during which the person acquires a conception of the meaning of the behavior and perceptions and judgments of objects and situations, all of which make the activity possible and desirable (1953:235).

As Becker's research on initial cannabis use (1953) has found, cannabis users learn the meaning of cannabis objects through an interpretive process as well. If a person has used joints all their life and are introduced to a bong for the first time, although the person has experience with cannabis and joints, they may think that the bong is a nice flower vase until someone picks it up and starts smoking out of it. Through a process of interpretation they see that what they thought was a vase, is actually a piece of equipment which can be used to get high. Changing the meaning of what that object was originally interpreted as. This alteration of meaning and understanding of the object is symbolic interaction.

Dabbing is a new drug phenomenon which requires new materials and gear different from traditional cannabis flower/bud use. Due to the new materials and gear require for use, novice users must learn how to use dabs and be taught to take dabs. Krauss et al. (2015) address the inability of novice users to manipulate the equipment associated with dabbing. Krauss et al. (2015) found that novice users do not understand the details and function of the equipment or the rituals associated with dab use specifically. Although novice dab users may be familiar with smoking cannabis flower out of a pipe, joint, bong, or soda can, they may not have any experience with dabs or dabbing. If they do not have any previous experience with dabs, they could be unaware of

the specific ritual and processes associated with dab use, in turn opening themselves up to negative health impacts due to their lack of knowledge/understanding. This is because the process of dabbing differs from traditional cannabis flower consumption with a bowl and a lighter, as such, novice users must become familiarized and socialized to the equipment associated specifically with dabbing.

Social learning theory

Similar to SI, social learning theory is a theory of learning and social behavior. Developed by Bandura (1971) the theory seeks to explain why people behave as they do. Bandura discovered that people learn from one another, via observation, imitation, or by modeling others and from the behaviors, attitudes, and emotional reactions of others. Similar to SI, through observational learning people can acquire symbolic representations of modeled activities and form an understanding of objects and functions involved with the activities. Bandura found that self-evaluative and self-reinforcing functions play a prominent role in social learning theory. This theory is unique because it shows that people are conscious of their selves in relation to their performance while learning new things. This also shows that new behaviors can be acquired by observing and imitating others.

The author found that some users take multiple hits and still don't feel a thing and other users can try smoking cannabis multiple times and still not report experiencing symptoms related to getting high. He explained that users who reported not getting high

because of a lack of understanding of how to use or inhale the drug “properly, in a way that insures sufficient dosage to produce real symptoms of intoxication” (1953: 236). Becker outlined that novice users must be explained 1) how to use the drug, and 2) how the user should feel after inhaling cannabis. He stated that this process is taught to novice users by more experienced and seasoned users. He noted that failure to understand these processes may lead to novice users having insufficient inhalation techniques among other things, which may lead to novice users misunderstanding or misrepresenting the feeling of being high.

Becker’s research is important to the field of initial cannabis use because it illustrates the importance of learning “how to” use cannabis, and what being high on cannabis “feels like” to novice users. His research found that there was an SI dimension of first time drug use and his research shows the subjectivity of understanding of what being “high” is for first time users. Becker’s (1967) elaboration on the subjective experience of drug use was the first of its kind in sociology. He found that drug users take drugs for different reasons, while some take drugs for medical purposes or to cure an ailment, others take drugs recreationally or just to get high. There are many effects that can be felt from using the drugs and these effects can be experienced in a variety of ways, from person to person and from drug to drug. Becker states that the way drug users subjectively interpret those effects is influenced by the way others define those effects for them. He also states that any effects noticed can be singled out or taken in accumulation and be defined by the user as pleasurable or desirable. No matter how subtle or extreme,

these effects can then be sought out as a goal in relation to future use. While his research focused on cannabis users and “joints,” this thesis project looks to assess the subjectivity and learning process involved with the highly potent forms of concentrated cannabis extracts currently saturating the cannabis market.

Becker (1955) also describes three stages of cannabis use: the beginner, who is smoking cannabis for the first time, the occasional user who uses sporadically, and the regular user who uses daily. He applied the three stages of cannabis use with social control. Social controls are the many ways in which our behavior, thoughts, appearances, and actions are regulated by the norms, rules, laws, and social structures of society. Social control is maintained by an agreed set of rules and laws which govern people’s actions and valued behavior is rewarded while negatively valued behavior is punished (Becker 1955). In the case of understanding dabbing, Becker’s study provides insight to the application of social control to cannabis use and found that progression from one stage of use to the next such as from beginner to sporadic user, is done through a process of socialization.

Becker (1953) posited that to be able to understand how to get high, users must be shown the process of how to take cannabis and the equipment associated with use. Users must also be shown how to initiate the drug ritual and how to inhale the drug to achieve effect. This is interesting because if novice users start inhaling from the wrong end they burn their face, or if they don’t inhale at the right time or deeply enough, they may waste their hit and fail to feel any effect. Regarding first-time cannabis use, He states “an

individual will be able to use (cannabis) for pleasure when he (1) learns to smoke it in a way that will produce real effects; (2) learns to recognize the effects and connect them with drug use; and (3) learns to enjoy the sensations he perceives” (1953: 235).

Regarding first time use, he also posits a novice user must be shown or explained what the subjective feeling or effect of being “high” is like, to understand what being high is in relation to others’ experiences.

According to Becker the ability to interpret the effects of being high by novice cannabis users is a socialized process. In other words, cannabis use is taught to these novice users by more experienced users, who teach a novice user to regulate the amount of cannabis they smoke more carefully to avoid any negative or unwanted symptoms while holding onto the pleasant ones. During this socialization process, there is learning done by the novice user in relation to how much you need to use to get high.

Understanding how much to use to get high is particularly important in relation to novice dabbers due to their high potency and the concentration of cannabinoids in dabs as the psychoactive properties of cannabis are enhanced.

The author states that even if a user passes out or pukes after they smoke cannabis, more experienced users will teach the novice user they can “get to like it after a while.” (Becker 1953:240). When users feel uneasy, the experienced user may assuage the first-time user experience and helps them redefine the situation in relation to cannabis use. Through this social process of coaching or teaching from experienced to novice user, what was once considered a frightening or distasteful experience instead becomes defined

as pleasant, desired, and sought after by users. When describing this process Becker stated that “enjoyment is introduced by the favorable definition of the experience one acquires from others. Without this, use will not continue for marihuana will not be for the user an object that he can use for pleasure” (1953: 241). This shows the social learning process, as taught by more experienced peers, will influence whether the user decides to continue use or not. If the user learns to enjoy the sensation of being high for the first time, use will continue until they no longer define the effects of cannabis use to be pleasurable.

Becker (1967) also found that peer and cultural influence play a significant part in navigating the effects and experiences related to drug use, especially unwanted and/or negative effects. The author states, “participation in drug using subculture tends to minimize (negative effects or instances of psychosis), because other users present the person with alternative explanations of (their) experience that minimize its lasting effects” (1967:163). When a novice user gets too high or has a negative reaction to first-time drug use, more experienced users try to manage the situation by redefining the situation and explaining to them they are okay. This tells the novice user the experience they are having is natural or fine, in turn, normalizing the experience. The management techniques he identified were that users may apply folk knowledge and other techniques to similar reactions they have seen to reduce the effect on the user, such as telling the novice user to go outside and get some fresh air or to get a drink of water or bite to eat as a way to sober up a bit.

Becker states that experienced users will also look after novice users also to make sure they do not do harm to themselves or others, such as not allowing them to drive or keeping them in a safe setting, and away from unwanted eyes. This can be done by keeping first time use in restricted or private settings; as a type of social barrier to outside opinion and negative influence of those who are not involved with the drug use referred to as non-users (Becker 1967). This contributes to this current study because this research project seeks to establish the social learning portion of understanding how to use dab equipment, how to inhale dabs, how to understand what being high on dabs is like, and how to manage negative or unwanted effects and reactions.

Online engagement and social learning

Hallstone (2002) sought to build on and elaborate upon Becker's theory. He found that while novice cannabis users learn in the traditional interpersonal way, they are also learning through other, less direct social instruction. He posits that not all users are taught through interpersonal interaction, rather, participants in his study reported learning through observation and imitation. Hallstone (2002) found that by observing and imitating others, novice users can hide their inexperience and appear as if it was not their first time, in order to mask themselves from and to blend in with more experienced users. He presents a theory of distance or remote learning that lends itself well to electronic learning where users engage online with material through digital mediums, instead of during direct physical presence. This relates to novice cannabis users being able to learn

the processes and rituals involved with first time use by a sheer means of observation and imitation. This means experienced users do not have to be physically present to verbally instruct or show a novice the proper technique of drug use and what being high for the first time will feel like.

In the digital age we now live in, and as shown earlier in the YouTube section of the literature, people are learning via the internet and user generated content published online for others to see and share. Connecting these two concepts, we can see novice users do not necessitate a physical presence of an experienced user to initiate and must be taught about first time use. Rather, users can sign onto YouTube or find “WeedTube”⁴ channels and watch and observe the processes and rituals involved with using a select type of cannabis or new method of delivery for cannabis, as seen and shown by the videos posted online. Users can then pick up cues and understanding about a particular drug, strain, type, or route of administration in relation to cannabis and after watching others partake, can then imitate the material and content that they’ve seen. This is an important topic to my research project because I seek to understand what first time dab user experiences are and by watching videos users are able to learn via YouTube.

⁴ There is a community of cannabis friendly YouTube users who post videos and interact with each other relating strictly to cannabis use and consumption in many different forms, this community is referred to as “WeedTube.”

Uninitiated dab users could be going to YouTube to watch videos and to learn how to take their first-time dabs, normalizing this practice.

Becker (1953) reported that most users do not get high the first time they try cannabis since methods of delivery, cannabis potency, and routes of administration in regard to cannabis use were not highly-developed at the time. However, Hallstone (2002) found that there have been historical changes in cannabis scenes and society since Becker's original study (1953). With the expansion of cannabis legalization, cannabis use has been continually increasing as well. As a result, routes of administration and methods of delivery in regard to cannabis use have expanded as well. Hallstone (2002) posits that historical expansion in methods of delivery and potency of cannabis have necessitated a change in Becker's theory. He discovered that the percentage of users who get high appeared to have increased considerably over time. He also found that increased potency of cannabis over time contributes to novice cannabis users being able to recognize the effects getting high for the first time.

The routes of administration and forms of cannabis available to users have continued to expand with cultural and societal changes in cannabis acceptance and is more directly shown by the continued expansion of cannabis legalization in the United States. The expansion of routes of administration, types of dabs, and methods of delivery in relation to cannabis continue to expand in the marketplace. Researchers are still making new discoveries related to the cannabis plant and the bioactive compounds and

cannabinoids found within the cannabis plant. With the introduction of highly potent cannabis concentrates researchers are still in the learning process as well.

Hallstone (2002) found Becker's social learning process and theory of using cannabis for pleasure has survived the test of time remarkably well. He sees the foundation of Becker's theory as valid and applicable with slight variations to his theory to account for present-day social context surrounding cannabis. Hallstone attributes this to distance learning when he states:

We must also reconsider whether users still must be taught to perceive the effects of (cannabis) via direct social interaction. It seems likely this is no longer necessary, although some users may learn to recognize the feeling of (cannabis) intoxication via less direct modes of social interaction. However... these changes should be viewed as tentative... (and) further replication, with larger and random samples, is needed before these changes in Becker's theory are adopted permanently (2002:841).

This could be the case for novice dab users, by signing into YouTube and watching more experienced users, they are learning to recognize the processes and feelings associated with concentrated cannabis extracts and dab use.

METHODS

This exploratory research study utilized qualitative research methods based on a thematic analysis of first time dab videos on YouTube. This method provided me with insight into the types of conversations and language exchanged amongst first time dabbers and the YouTube population via the comments section, which was also analyzed for this research project.

Maguire and Delahunt (2017) define thematic analysis as the process of identifying patterns or themes within qualitative data. This research project analyzed YouTube videos that featured self-identified first-time dabbers taking their first dab on film by employing thematic analysis and developing the themes found within the data. The goal of thematic analysis is to identify themes or patterns in the data that are important or interesting and to use these themes to address the research and say something about an issue. Thematic analysis looks at both semantic and latent themes. Semantic themes are those which look at explicit or surface meaning, where “the analyst is not looking for anything beyond what a participant has said or what has been written” (Braun and Clarke 2006:84). Latent themes look further into what is being said and “starts to identify or examine the underlying ideas, assumptions, conceptualizations, and ideologies that are theorized as shaping or informing the semantic content of the data” (Braun and Clarke 2006:84).

For this project, I followed Braun and Clarke's (2006) 6-step framework for conducting thematic analysis. I first (1) became familiar with the data by watching all videos included in this study in totality and by transcribing each video verbatim. I then (2) reviewed the transcripts and generated initial codes by doing line-by-line, open coding in Nvivo QSR qualitative research software.⁵ After initial coding was completed I (3) searched for themes within the data and organized the codes into broader themes that clearly fit together. I then (4) reviewed the themes for accuracy to ensure each fit with the other codes assigned to that theme. During this phase I gathered all the data together that were relevant to each theme using Nvivo QSR; these data included direct quotes, transcripts, comments, and the video content itself. I then (5) defined the themes I discovered within the data by identifying the main themes and sub-themes within the data. After establishing many different themes within the data, I began (6) writing up the findings to this study based on the most frequently discovered themes related to the discourse, videos, and comments, associated with first time dab users on YouTube. Finally, I provided a conclusion which discusses the findings of this research project, the limitations of this study, and makes recommendations for future researchers.

⁵ According to McNiff (2016), Nvivo was designed for qualitative researchers working with rich text-based and/or multimedia information, where deep levels of analysis on small or large volumes of data are required.

Thematic analysis framework was a good technique to use for this study because of the many different kinds of data that were available on YouTube. Thematic analysis allowed me to capture and code many different types of data, and combine them into themes, regardless of the medium used to communicate information used in this study such as discourse and language use, visual images, or written comments from other YouTube users. Thematic analysis of YouTube videos has been used to analyze responses to online hate material (Rohlfing and Sonnenberg 2016), to assess alcohol content in contemporary YouTube music videos (Cranwell, Britton, and Bains 2017), and to provide insight into examine audience responses to citizen journalism on YouTube (Antony and Thomas 2010).

YouTube has thousands of different videos that have cannabis users taking dabs in various forms. Some videos offer “dab challenges” which dare other YouTube users to take similar sized dabs or to dab under select conditions, while other videos show people trying to break “world dab records” by smoking 20+ grams of wax in a single sitting. These videos provide a means of interaction and dialogue exchange for the cannabis community and more specifically for the dabbing subculture. Dab users on YouTube are engaging with each other in many different ways through this social media platform. By watching, liking, subscribing, and commenting on these videos users are engaging with the social media content and the users who create that content. This offers opportunities to gain greater understanding of what the public saturation and consumption of dab videos are in relation to first time use on YouTube, which could offer insight into the

depth of normalization and socialization of dabbing occurring via social media and YouTube.

This research project asks what first time dabbler experiences are like as they are represented on YouTube? This research project also asks if YouTube is a viable site for the normalization and socialization of uninitiated dabbers to learn about this emergent subculture?

Sampling Procedures

I searched YouTube on May 16, 2018 to find videos specifically related to first time cannabis dab use. The search terms I used to find videos related to first time dab use were “first time dabbing” and “first ever dab” (quotation marks included). I employed these search terms because of their proximity to first time dab use, as YouTube strives to bring up videos most relevant to the search term users enter. I utilized YouTube’s standard “relevance” search filter which sorted through YouTube media and brought up the videos which closely corresponded to the search terms used.

I chose this method of sorting videos because relevance is YouTube’s default filter for its search algorithm. It is unlikely that most YouTube users change the filter when searching for videos, as changing the filter is considered “advanced searching” (Google 2018). I cleared my search history on YouTube prior to gathering data for this study to avoid the influence of any previous searches performed on YouTube.

YouTube search pages consist of 20 videos per page (YouTube 2018). According to Krauss et al. (2015) most people who search online do not scroll past the first two pages of internet search results. However, market research done by Chitika Online Advertising (2013) found most internet search users do not continue past the initial page of results on internet searches. With this in mind, only the first page or initial 20 videos for each search term, as arranged by YouTube's standard "relevance" search filter, were used in this study. By using this default search filter, I present a convenient sample of first time dab use videos on YouTube.

Videos relating to the dance move called "the dab" were excluded from this study. Videos that had already been selected from a previous search or had already been selected for analysis, were excluded. Videos that were recollections of first-time dab use experiences were excluded from this study. Videos that were not about first-time cannabis dabbing, were not in English, and videos that could not be viewed, were also excluded from this study. After searching the initial sample of 40 videos, I found that only 21 of the videos qualified for study. Videos I excluded from analysis: 13 videos included the dance move "the dab" and 6 duplicate videos that came up in both searches.

Sample Description

For this study, I conducted a thematic analysis of 21 YouTube videos that pertain specifically to self-identified first-time cannabis dab users only.

Data Analysis

For this study, I analyzed the visual content (such as the videos and the comments sections) and the language and discourse that participants used (audio content and transcripts) while engaging in first time dabs. By watching the video content, listening to audio of the video, as well as reading transcripts and the comments section from each video, I sought to gain insight into this select population (first time dabbers) within cannabis culture. My research project sought to understand what the experiences of novice cannabis dab use is like for users. I used social theory in the form of Symbolic Interaction and Social Learning Theory gain insight into first-time dab use. I transcribed all videos used in my study verbatim. I analyzed transcripts by means of line-by-line open coding using data analysis software Nvivo by QSR International.

I created memos throughout the coding process regarding how these codes and themes are beginning to explain the process of developing these codes and how the codes could be applied to theoretical models. Themes were developed mainly through an inductive method (i.e., as they emerged from the data). The key elements that were relevant to the area of inquiry were identified and labelled by using either in-vivo codes - the informant's words, or in-vitro codes - the words and concepts of the researchers' discipline. This process of open coding led to a clustering of substantive codes with similar content into themes, which were subsequently grouped and organized under thematic analytical categories.

After analyzing the data and creating codes, memos, families, themes, and thinking in larger theoretical contexts; I located patterns in this study by using the application of social theory and theoretical models surrounding and relating to drug, cannabis, and dab use. I used these emergent patterns in the data to relate these to specific themes, then created sub-themes of how I see the particular social theory apply to the codes and respondent's experiences. This allowed me to create an understanding of what users' experiences are when taking first-time dabs on YouTube.

Additionally, Nvivo QRS allowed me to capture web content, including YouTube videos and the comments associated with each video as well. I chose to capture the verbal exchanges provided within the videos themselves and in the comments section below the video. This was done in an effort to understand the discourse being exchanged on video during first time dab use experience as well as the dialogue being exchanged between the online community as it pertains to each video. Analysis of comments helps to provide a rich portrait of community engagement and understanding of novice dab user experiences.

FINDINGS

I conducted this study via YouTube, where there is an abundance of videos on cannabis and a large amount of content dedicated to cannabis dabbing specifically. The videos collected and used for data analysis in this study are representative of first-time dabbers experiences on YouTube. An analysis of the data yielded from YouTube videos provides the opportunity to learn about novice dabbers. Although many themes developed during the data analysis, this study will focus on those that appeared most frequently.

Video Characteristics of First Time Dab Videos

Information pertaining to the videos collected from YouTube was tracked, recorded, and analyzed. Videos on YouTube showed first-time dabbers in an array of settings and locations such as outdoors at cannabis festivals among many people, indoors with other people or small groups, as well as indoors with first-time users dabbing all by themselves. Most frequently, first time dabbers were done inside with just one other person who was well experienced with dabs and were considered informants. This section provides understanding and context to the amount of viewership, ratings, and provides readers with a barometer to measure the level of interaction that is occurring via YouTube when considering dab video consumption on the platform. The more views,

likes, dislikes, or comments made on a specific video, equates to a higher level of saturation for that video.

A total of 21 YouTube videos with self-identified first-time dabbers were selected for analysis. The view count for all 21 videos was 1,510,457 views, with an average of 71,926 views per video. The length of all 21 videos was 75 minutes in total, with an average length of each video being about 3.57 minutes. Across all 21 videos there were 16,597 ratings (likes and dislikes) in total related to the video content. 14,766 of these ratings were likes, with an average of 703 likes per video selected for study. 1,831 ratings were dislikes, with an average of 87 dislikes per video. The total number of comments provided to all 21 videos was 4,114 comments, with an average of 196 comments per video. Only 5 of the videos were restricted to YouTube users age 18 and above, representing 23% of all videos in this study. This shows that a large number of first time dab videos are not age restricted and are available to anyone who visits YouTube regardless of age. These numbers are significant as they represent the magnitude of online traffic and engagement that YouTube users are experiencing in relation to first time dab videos. When considered collectively, we can see that the saturation of first-time dabbing content is significant.

Understanding the Equipment

One major theme that developed in the data was that novice users' understanding of dabs and dab equipment was minimal. This study found that novice dabbers must be oriented with the dab product and dab equipment while taking first time dabs or they could risk harming themselves due to their lack of knowledge which presents a possible risk to public health. In 4 of 21 videos novice dabbers burn themselves in some way or another. From this we can see that the data provided clear examples of symbolic interaction where novice users are failing to understand what dabs are and what the equipment is that's used to be able to vaporize cannabis extracts or take dabs.

The importance of first-time dabbers understanding the product and equipment associated with first-time dab use was apparent. In a video titled "dome-less nail dab fail," a novice dabber is shown inhaling a dab and then grabbing a red hot nail after taking his dab in an effort to clear the rig and remove all the smoke. This novice dab user associated the dab rig with a "pull-carb" bong used to ingest cannabis flower, where the bowl of cannabis flower is lifted off the down-stem in an effort to clear all the smoke from the bong chamber. Due to the user's previous association with cannabis, the glass rig (which looks similar to a bong) was a symbol related to cannabis use for the novice dabber. The users previous interaction with a bong dictated that the novice user would treat the rig the same way. However, as soon as he grabbed the nail, the informant who applied the dab onto the nail for the novice user started screaming, "NOOOO!"

NOOOOO! That's hot!" The informant then quickly slapped the hot nail out from the novice dabbers hand and onto the ground in an effort to minimize any burns or physical harm to the novice dabber.

The YouTube user exchanges presented on the next page are public information from the video "dome-less nail dab fail's" comment section and are example of the types of interaction and engagement between two YouTube community members regarding first-time dabbers not understanding the hot nail in the same way as the novice dabber in the video they watched.



Figure 2⁶ YouTube Comment #1

THEBROWNSTAIN comments and states how he tells first time dabbers that the nail is extremely hot and not to touch it. Even after warning them, he sees many people

⁶ YouTube, accessed May 16, 2018, <https://www.youtube.com/watch?v=8sQuhpaO2c8>

do the same thing. Chronic Cast states that they have similar experiences and that they always warn people several times, and yet users still pick up the hot nail. Additional comments left by other users said similar sentiments of how they themselves had done the same thing or had seen friends do the same. The comments section from “dome-less nail dab fail” showed this was not a one-off type of occurrence, with many different users commenting that they had seen or experienced the same thing.

The example provided above represents symbolic interaction (Mead 1934) in first-time dabbing. When the novice user burns his hand, it illustrates the symbolic and relationship he had with bongs used for cannabis flower as he appears to do this out of habit. A bong with attachments connected to it for dabbing looks very much like a bong used for smoking cannabis flower. He saw the object as being something he had previous experience and familiarity with and operated accordingly. However, the novice user failed to understand the equipment associated with dabbing is different and could potentially harm him. The experienced dabber does what he could to minimize injury/burning (slapping the nail out of the novice users hands) but from this example, it is apparent that an explanation of what the equipment used for dabbing entails is necessary and novice users should be warned of how to avoid injury when dabbing for the first time. Considering that researchers have found that novice dabbers show difficulty in manipulating a dab rig for the first time Krauss et al.’s (2015) and researchers posit that there are higher instances of burns associated with cannabis oil due

to the equipment involved with use (Loflin and Earleywine 2014). The risk for burns for novice dabbers is considerable to public health researchers.

Cooling the Nail

This study also assessed whether first-time dabbers were conscious of the temperature/heat of the nail when they take their dab, which could have implications to user's health. When heating the nail with a torch, the ability to regulate temperature is difficult and knowing the actual temperature of the nail before a dab is applied and ingested can be hard to determine. Seasoned and experienced dab users who use a torch will wait a set amount of time or place a hand above the nail to get a "feel" for the temperature before taking their dab.

In regard to the heat source used to heat the nail to temperature, this study found that a vast majority, 20 first-time dabbers, used a torch to heat the nail, representing 95 percent of the population studied. Only one (1) first time dabber used an E-nail to take their first-time dab. Of those 20 dabbers who used a torch to heat their nail, only four checked the heat of the nail. Heat checks were verified by analyzing language used by novice dabbers regarding the nail and by watching videos to see if a dabber "felt" the heat rising above the nail. An example of a first-time dabber feeling for the heat of the nail is presented on the next page.



Figure 3⁷ Example of Feeling the Nail

“MaryLovesGlass” is taking a first-time dab by herself. After heating the nail, she places her hand over the nail and says: “It’s pretty hot. Pretty hot. Waiting, waiting. Scared. Waiting. Oh, I really heated that up.” Mary waits a total of 43 seconds while feeling the top of the nail before she says: “Let’s try it. Cheers everybody.” before taking her first-ever dab. The picture example above shows MaryLovesGlass holding the dab rig in one hand while placing the other hand over the top of the nail to feel for the heat that rises off the nail. Once the heat that is rising begins to subside, dabbers will then consider the nail “cool enough.” and will place the dab down on the nail and begin inhaling.

⁷ YouTube, accessed May 16, 2018, <https://www.youtube.com/watch?v=dUvZS2XAdhY>

By checking the heat, users are showing that they are conscious of the possible negative health outcomes associated with high temperature dabs (Maheen-Atrash et al. 2017). In the sample I studied, 17 first time dabbers did not check the nail for temperature, representing 81 percent of the research population. This shows that a majority of novice dabbers may not know, and/or aren't being taught by experienced dabbers, that there are harms associated with dab use. The lack of understanding and knowledge means that first time dabbers may be susceptible to negative health outcomes and public health concerns associated with "hot" dabs.

Associating with Hard Drugs

Media images of drug use throughout the 1980's generally consisted of an African-American person using a torch to heat up some tin-foil to freebase crack-cocaine. During this time, this image was entered the public consciousness of society. According to Reinerman and Levine (2004) this image became representative of the drug using culture in the United States for some time. During the mid-late 1980's and early 1990's the image was engrained to the public consciousness to the point that when people see a torch applied to drug use, they associate that torch with hard drug use such as crack or methamphetamine. Recent media reports (Cannama 2017; Missbotwin 2016) have compared dab use directly to crack-cocaine use. Kim (2013) found that cannabis oil and dab use are splitting the "pro-pot" community along the lines of pro-BHO communities

(where use is accepted) or no-BHO communities (where use is not accepted). This is because the techniques used to produce dabs bear an eerie resemblance to those used for harder drugs like meth or crack. One related theme that emerged within my research in regard to understanding novice users experiences, was that first-time dabbers seem to associate dabbing with harder drug use.

Examples of the discourse exchanged between novice users and their informants on video indicate the relationship to hard drugs that is formed by novice dab users when they see the torch being lit up and used to heat the nail during their first time dabbing experience. In “Dabbing the old man out” while the torch is being applied to the titanium nail a 62 year-old white male named Jerry looks down at the torch/nail and expresses his concern about dabs to Tony, the informant who’s heating the nail. The following is a transcript from this first-time dab video and Jerry’s reaction to seeing the nail being heated up and looking at the glob of cannabis extract on the end of the dabber.

Jerry: “I don’t know about this Tony.”

Tony: “Trust me you’ll love it bro.”

Jerry: “This is a little scary man. This ain’t weed dude, it sure don’t look like it.”

Tony: “No it is bro trust me.”

Jerry: “It don’t look like it dude”

Tony: “Just hit it real hard. All you gotta do is just put that little dabber on there and then hit it.”

Jerry: “Ok, this better not hurt me man.”

(Source: YouTube; I Love Dabs 2014a)

Novice users are hesitant to try dabs when seeing the torch light up for the first time. According to Cannama (2017) this is because a torch used for drug use has

traditionally been associated with methamphetamine or crack use, where users also require extreme amounts of heat to bring the equipment up to temperature for use. I found that first-time dabbers are unfamiliar with dab equipment and associate this new form of use with harder drugs, where (5 of 21) novice users in this study made specific references to crack and methamphetamine use. Jerry shows his reservation to consuming a substance that is not weed (such as harder drugs like methamphetamines or crack). By stating that he is unsure of the substance that he is about to be given to smoke, Jerry is questioning the informant as to the content of the substance. When Tony says “Trust me bro,” what he is saying is that this is ‘just cannabis’ and that it will not hurt Jerry when he takes his first dab. Tony, the informant, is assuaging Jerry’s concerns surrounding first time dabbing and the assuring him that the substance he is about to ingest is just cannabis and will not hurt the first-time user but rather an experience he will “love” and enjoy.

This example shows that when unexperienced users see the torch light up, some novice users need to be reassured that the substance they are going to ingest is just weed and not a more harmful drug with highly addictive properties and the possibility of death associated with use, both of which are associated with harder drug use such as methamphetamines and crack. The sociological relevance of this is that there could be social stigma developing within the cannabis culture surrounding dab use. We don’t know this yet because dabbing is a new phenomenon with little empirical research on the topic, but there is a possibility that dabbers will be looked at as second-class citizens within the cannabis using community. This is consistent with media reports of dabbing

being considered the “crack of cannabis” due to the alteration of the form of the substance from cannabis flower to concentrated extract which intensifies the high for users, and because the equipment associated with dabbing is similar to what is used to smoke crack, such as the use of a torch (Cannama 2017).

Dosing for First Time Dabbers

Another major theme that came about during the course of my study was that novice dabbers are conscious of the amount of cannabinoids and potency associated with cannabis extracts and as such seek out smaller sized dabs to lower the overall dosage of cannabinoids ingested. Prior to their first-time dabbing experience, novice users in this study showed apprehension related to first-time dabbing. Almost half (9 of 21) of the novice users in this study showed reserve and talked about being “scared” and/or not wanting to “die” or be “killed” prior to taking their first dab. This shows users concern surrounding first-time dabbing. By mentioning they were “scared” initially and did not want to “die,” it seemed that novice users were trying to get the experienced informants to reduce the amount/size of the dab administered to them in an effort to control the effect and ensure that they didn’t become too high or have a harsh physical reaction such as puking, passing out, or coughing profusely.

One example of novice dabbers concern is presented in a video produced by “StonersRWeed,” who is an experienced dabber that finds novice or inexperienced

dabbers to partake in first-time dabbing sessions called “kill a friend Friday.” In the video mentions getting his dab out of the way so his friend who has never dabbled before can “die.” The novice user then mentions that he is “scared” while the nail is being heated, but still takes his dab when told to do so by the experienced user.

During the course of this research, I interpreted being “scared,” “dying,” and being “killed,” as symbolic interaction in the form of negotiated meaning between the first time dabber and experienced informants. The novice dabbers were using words and language such as being “scared”, “dying”, and being “killed” as symbols of concern to experienced informants. By using these descriptive code words, novice users are seeking to negotiate a smaller hit for themselves from the experienced user to avoid any possible harms that could arise when taking first time dabs. An example that highlights this concern for dab size with novice dabbers is from “Elisondra Richards,” which is presented below.

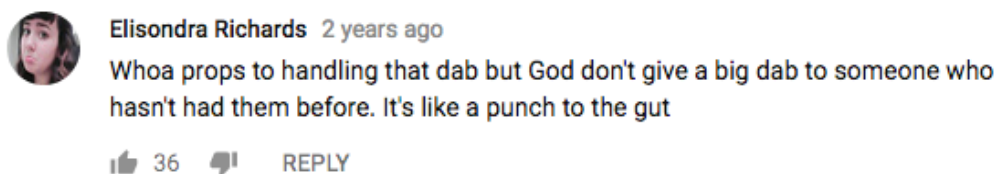


Figure 4⁸ YouTube Comment #2

⁸ YouTube, accessed May 16, 2018, https://www.youtube.com/watch?v=aFl11FWRO_s

Elisondra complements the novice user for “handling” the dab but ridicules the experienced informant for giving such a big dab to someone who has never had one before. While she does not mention “dying” specifically, she still compares a novice dabbler taking a big dab to a “punch in the gut” which I interpreted as not pleasurable. By stating she gives him “props”, Elisondra is complimenting the first time dabbler who “handled it,” but she is also saying that a smaller dab would be more appropriate for a novice dabbler. While most cannabis users are aware that cannabis cannot kill someone from overdosing, these slang words represented the anxieties of first time dab users. As such, these code words represented a way for the novice dabbler to negotiate meaning, through the symbol of “death,” related to dab use in an effort to tell the experienced dabbler or informant that they were trying to avoid any negative experiences and/or adverse reactions to their first-time dab experience.

Physical Reactions of First Time Dabbers

A considerable number of first-time dabbers in this study coughed profusely (15 of 21) , vomited (4 of 21), or passed out (1 of 21) after taking their first dab. Codes were developed to track when harsh physical reactions happened. These codes were then compiled into a significant theme titled, “Physical Reactions.” An example of harsh physical reactions associated with dabbing comes from “Weeding A Loud” where a novice dabbler referred to as “No-Name Joe,” describes the physical pains and struggles

associated with first-time dabbing. No-Name Joe hits the rig and starts coughing hard and non-stop immediately. A transcript of No-Name Joe's experience is provided below with emphasis on his physical reactions added in parentheses:

No-Name Joe states, "I told you I can't do all that. (coughs more) You're going to make me puke. (coughs more) Oh F*ck. I can't get my jacket off. (coughs more as he tries to throw his jacket off) I'm drowning, I feel like I'm drowning! (coughs more) Ouch, my back. (coughs) It made my back hurt! (struggles to catch breath) F*ck. Alright, blunts only. Wow. I can breathe a little. (as he catches breath) That was way too much. (coughs) Don't try this at home kids."

(Source: YouTube; Weeding A Loud 2018)

No-Name Joe seemed to have physical pain following his first dab. Many novice first time dabbers coughed profusely. By stating "I feel like I'm drowning" Joe is not saying he feels like he is struggling to get oxygen and can't breathe. By stating "Alright blunts only" Joe is referencing that he is familiar with cannabis culture and the physical reactions associated with blunt use but in that same breath Joe is also stating that he does not want to participate in dabbing in the future and will stick to what he's comfortable with.

The most common physical reaction was coughing, which happened in a majority of videos viewed for this study. First-time users appear to be coughing while trying to breathe. 4 of 21 first time users within the data vomited or "spit-up" during their first dab experience. There was also one video that showed a woman passing out as soon as she took her first dab. A comment from "mrkushlungz420" shows that the woman did not "almost die" but, rather, she just passed out.



Figure 5⁹ YouTube Comment #3

The user then comments about his friend doing the same thing. I interpreted this comment as mrkushlungz420 informing the other YouTube users that this is not something to be concerned about, but rather something that dabbers may seek. After experiencing harsh physical reactions related to dabbing, the novice dabbers in my study were frequently told by the more experienced informants that it was “all good” and that they would be alright. By providing positive reinforcement and assuaging novice user concerns, experienced users are telling the novice users that vomiting or passing out is something that is desirable when taking first-time dabs, which is representative of Becker’s social learning theory of cannabis use (1953) when he states that novice “marihuana users” who have severe reactions to first time use, such as puking or passing out, can be taught or assuaged by more experienced users that the harsh physical reactions are something that is sought out by users and that if they continue use, they can get to like it after awhile. Users experiencing harsh physical reactions in this study were

⁹ YouTube, accessed May 16, 2018, <https://www.youtube.com/watch?v=j0hJzz1CdMI>

told to sit down, relax, and to drink water. Similar to Becker, these experienced users were making sure that the novice users were comfortable and reassured that they would be alright.

Online Engagement

Another theme that arose from the data was that a few first-time dabbers were all by themselves and doing their first dabs with no experienced dabber or informant present. All the first-time dabbers who were alone and by themselves during their first dab (6 of 21) made some mention of watching other videos to better understand the processes and rituals associated with first time dabbing.

These videos showed the novice dabbers by themselves talking directly into the camera, directed at other social media users. Addressing the camera, the lonesome novice dabbers always had a greeting such as “Hey guys, how’s everyone’s day going? Thank you so much for joining me on my channel today.” This seemed to create a greater sense of connection and engagement amongst YouTube community members. The users who were alone engaged with the online YouTube community in-depth and by posting videos sharing their experiences with their fellow online friends gathered through this select group of cannabis-friendly YouTubers. This, in turn, allows for the exchange of information and dialogue in relation to cannabis and first-time dab use via the internet and social media platforms such as YouTube.

I created the theme “online engagement” as a theme to represent users who were engaging with other YouTube users via the video for the purposes of either seeking or dispensing dab knowledge. This indicates that novice users can learn the process of dabbing from a distance or through digital media and YouTube, and that informants don’t have to be physically present to be able to explain, model, or demonstrate what to do when dabbing.

One YouTube user named “Jimichangas420” took time to turn on a dab video on YouTube in the background while he took his first dab and even made mention of seeing how other people prepared their dabs before he took his first hit. Another novice dabbler and YouTube user named “Chiefingreen420” elaborates about reaching out to and learning from another YouTube user.

He states, “I hit him up and was like hey, I’m doing my first time dabbing video, do you have any advice for me? And he was like, Yeah I do. He was like, now what kind of torch do you have? And he gave me like the info on my torch, like where to hold it. He told me to hold it with the tip of the center on the nail.”

(Source: YouTube; Chiefingreen420 2016)

This is an example of online engagement, where users are learning to smoke dabs by engaging with other users over social media platforms like YouTube. Although most forms of interaction and social learning are taking place with the informant and novice dabbler both present during first time dabbing, online engagement provides an alternative means of interacting and networking with dabbers and dab content over YouTube. While Chiefingreen420 is holding the torch to the nail and heating it up, he talks about a myriad

of things like how he is nervous to take his first dab and that he is new to dabbing while continually engaging with the online community. MaryLovesGlass provided another example of direct interaction with the camera and online community of YouTube. By engaging with the online community, she is trying to inform other novice dabbers as well as the cannabis/YouTube community at large. The example below shows MaryLovesGlass was reaching out to the dabbing community on YouTube, sharing knowledge and advice, and giving a review of her first ever dab and a warning to novice dabbers as well.

MaryLovesGlass states, “I just realized I didn’t carb it and I probably should have. Ohhhh. Mmmmm. Blueberry cheesecake, I can taste that. I can feel that. Let me set this hot thing down. Ok ladies and gentleman. A little dab will do ya! Um, thank you so much for the subs, thank you so much for watching, comment below, like... I can’t even remember right now so I’ll talk to you guys later. Bye!”

(Source: YouTube; MaryLovesGlass 2015)

The statements above show how novice dabbers can be informed by other YouTube users about dabbing. It also shows how novice dabbers share information and insight into their first dab experience with other cannabis friendly YouTubers or uninitiated dab users as well. The first-time user understands that dabbing is an intricate process with which he is not familiar with. While Chiefingreen420 states he did research on how to dab and reached out to other users for advice, he also acknowledges that even after he takes his dab, he is still unsure of the technique and the rituals associated with dabbing. Meanwhile Jimichangas420 used the method of demonstration to learn from other YouTube dabbers, by putting on a video showing experienced users dabbing while

he partakes in his first dab. MaryLovesGlass provides an example of online engagement as well by sharing, showing, and narrating her first dab use experience to other online community members.

Hallstone (2002) found that less direct modes of social interaction are being used to learn to recognize how to get high, and what the feeling of being high on cannabis is like. In relation to Hallstone's work, this research project found that novice dab users are learning how to use by watching videos of other users. Videos used in this study showed dabbers by themselves with no one else present to coach the novice user through their first time dabbing experience. However, when novice dabbers were by themselves there was significantly more engagement with the YouTube community at large when compared to the videos with multiple people/dabbers in them. First-time dabbers who were by themselves talked about how they did "research" by watching other videos and learned about dabbing from observing others. This is a clear example of less direct modes of social interaction and social learning theory associated with first time cannabis use, as posited by Hallstone (2002).

Teaching - Rituals of Dabbing

Another major theme that emerged in regard to first time dabbing was how novice users came to understand the process and ritual involved with dabbing. Similar to Krauss et al.'s (2015) finding, many first-time users in this study were unsure of what to do with

the equipment or the process or ritual involved with dabbing when presented with their first dabbing opportunity. When present with a first-time user, more seasoned dabbers generally “coached” the novice user through their first time dabbing experience. For this study coaching was recognized and recorded in many different ways. In 14 of 21 videos the informant lit the torch and heated the nail for the novice user. The experienced user would then explain how to apply the dab to the hot nail to the novice user (if they did not do it themselves). Experienced informants frequently coached users on when to inhale, how to inhale, and were generally encouraging of first time dab use while the novice user inhaled their first dab.

Social learning was established in various forms, where first time dabbers are being shown by more experienced dabbers or informants how to use dabs. There was clear evidence that novice users are being taught the process and rituals associated with first time dab use. In other words, novice users are being taught how to take dabs by people who have done dabs before. One example of this was in a video uploaded by “Budezz inc,” where an informant named Bill gives a dab to a first-time dabber named Rocky and explains the process of inhaling a dab. The following is a transcript from the video that shows how novice dabbers can learn from informants. Bill has heated the nail until its red hot with a torch and then turns to Rocky to teach him about the process and ritual involved with dabbing.

Bill states, “Alright so it’s in the cool down stage right now. After we’ve heated it up now, the nail is going to cool down. When it’s cool enough, you basically hit it. Now you wanna slow your, well a lot of people hit it

real hard and you lose all your air right away. Hit it nice and slow, just make the bubbles go. By the time I'm done explaining this it will be cooled down enough to hit it. And then make sure that when I put the cap on it, that you're about halfway through your capacity for your breath. You don't, well you wanna kind of save some. OK? And I'll do it all up for you (as he takes the dabber with a glob of cannabis extract on it out of Rocky's hands and holds it for him to hit). Ready?"

(Source: YouTube; Budezz Inc 2017)

Bill then holds the rig and places the dab down on the nail for Rocky's first-time dab while Rocky simply inhales from the dab rig. This is an example of how experienced and seasoned dabbers can inform uninitiated novice dabbers and teach them, through modeling and explanation, what the process and ritual of taking dabs involves. This is a clear example of social learning where the user is told how to inhale dabs properly to achieve effect. When Bill grabs the dabber out of Rocky's hand and says "I'll do it up for you" this a demonstrated example of how to hold the dab rig and how to place the dab onto the nail for the novice dabber. This example shows that novice users are learning from the narratives and demonstrations provided by more seasoned and experienced dabbers.

The example below shows an uninitiated cannabis user "Rogan Harrow" is considering dabbing for the first time and wants to know what it feels like when compared to eating a cannabis edible.



Figure 6¹⁰ YouTube Comment #4

John Smith replies and “coaches” Rogan that the high feels great and that it is much more intense than edibles. John then says it is like “smoking weed for the first time” and recommends that Rogan give it a try. This is just one example of many pertaining to social learning theory in relation to first-time dab use that is quite similar to the findings of Becker (1953). The data showed evidence that novice users are taught to learn to smoke dabs in a way that produces real effects by being “coached” through the process of their first dab use by more seasoned and experienced users. Second, users are being taught what being high on dabs is like as their told “You’ll get so high! It’s like your first time ever smoking weed all over again” among other things. Although most videos did not show the entirety of the high experienced from first time dab use, from

¹⁰ YouTube, accessed May 16, 2018, https://www.youtube.com/watch?v=aFl11FWRO_s&index=15&list=PLznLAdCELYePFI8BAtdtUUYSkvlUDehFa

what the videos did show, I found that users (even those who experienced harsh physical reactions) were being taught to enjoy the sensations they perceive, which meets Becker's (1953) third tenant of "becoming a marijuana user."

Youth Dabbers on YouTube

While this theme was not one of the most frequent that was tracked during the course of this study, I feel that this is a very important topic/theme to cover in relation to first time dab users' experiences on YouTube as there are specific concerns related to the age at which cannabis/dab use begins. I found evidence in the form of two videos and the comments within this study sample that had first time dabbers that were under the age of 18. In a video posted by "The Og Crip Show," there is a novice dabber who appears to be under 18 years old. I interpreted the boy's age to be 16 years based on the physical and verbal cues provided in the video. The comments section revealed that I was not the only one that thought this novice dabber was under age. YouTube user named "Jeremy Mccoy" states that he took his first dab at 13 years-old and then tried weed later.

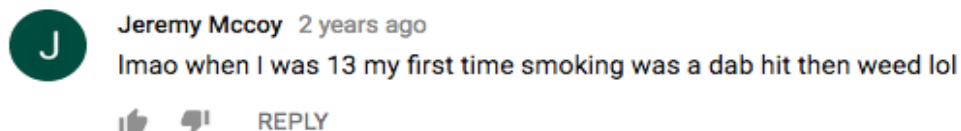


Figure 7¹¹ YouTube Comment #5

This study hopes to provide context related to first-time dab use on YouTube and the age at which dab use may begin for novice users. Jeremy Mccoy's comment provides insight into the young ages at which first dab use may begin. Smith and Anderson (2018) found that YouTube is a dominant form of media consumption which is used by 94 percent of 18- to 24-year-olds. According to the National Institute on Drug Abuse drug use at an early age is an important predictor of development of a substance use disorder later (NIDA 2018). The majority of those who have a substance use disorder started using before age 18 and developed their disorder by age 20. The likelihood of developing a substance use disorder is greatest for those who begin use in their early teens (NIDA 2018). Loflin and Earleywine (2014) found that there are specific concerns related to cannabis use disorder related to dabbing. They posit that dab users risk building up a tolerance and even report having withdrawals to dabs, in turn creating a dependence on dabbing to achieve desired effect.

¹¹ YouTube, accessed May 16, 2018, <https://www.youtube.com/watch?v=ooylBUiiHRM>

I also discovered that 77 percent of all videos used in this study had no age-restrictions on viewership, meaning that any and all YouTube users can access this content regardless of age. This allows for the facilitation and access of dab information and content to the YouTube using youth population. Additional research by Krauss et al. (2015) shows that dab videos on YouTube could be normalizing this new form of cannabis use for uninitiated novice users. When considering that multiple videos and comments were found that related to underage dab use, I found this theme particularly important as the age at which first time dab use began in this study is at 13 with other young dabbers who could be opening themselves up to a lifetime of risk by starting their drug using/dab using careers so early in their life course.

CONCLUSION

The representations of first time dabbers on YouTube described in this thesis present just a narrow glimpse into the broader dabbing subculture. Dabbing is characterized by its own unique language, product, equipment, and cannabis use practices, all of which have been developed by the dabbers themselves. As dab use continues to grow, these subcultural elements are becoming adopted and employed amongst the cannabis using community. We currently know very little about dabbing but as cannabis legalization continues to spread, the knowledge base surrounding dabs will continue to grow. This exploratory study sought to help researchers and the general population better understand the ways uninitiated novice dabbers are learning to participate in and become involved with this select cannabis subculture. I do not assume that any participants in this study will continue dab use, but the narrative and discourse as represented in the videos used for my study was found to be, for the most part, positive in nature, despite novice users showing some initial reservations. Positive comments generally centered around flavor/taste and the high/effect felt from dabbing.

I found that the saturation and consumption of first-time dab videos on YouTube has considerable depth, participation, and viewership. I also discovered that novice dab users are becoming familiarized with dabs and dabbing equipment through a process of symbolic interaction. When dabbers are not familiar with the equipment they are at risk for injury such as burning themselves by picking up a hot nail. I also found a majority of

first time dabbers were not conscious of the temperature of the nail, which presents health risks to uninformed users. Additionally, I found that first-time dabbers associate the initial dab experience with harder drug use such as crack or methamphetamines. Novice users were skittish and apprehensive when they see the torch being used to heat the nail, until they are told that its “just weed,” at which point the users relax and engage in first-time dabbing.

I found that novice dabbers generally seek out smaller sized dabs. Novice dabbers express concerns of “dying” from taking their first dab. By telling others they did not want to “die” they are using code words as symbols to negotiate meaning with experienced dabbers or informants to request a smaller dose as to not experience extreme or harsh effects from the dab itself. This study showed that novice dabbers do experience harsh physical reactions such as profuse coughing, vomiting, and even passing out immediately after taking their first dab. Coughing was the most frequent of these reactions. Similar to findings by Becker (1967), users who experience harsh physical reactions are comforted and assuaged by more experienced users. While novice dabbers may be familiar with cannabis flower use, I found that when taking dabs, users generally cough pretty heavily and appear to struggle to catch their breath. I also found online engagement was prevalent within representations of first-time dab use on YouTube. Novice dabbers are doing “research” prior to their first dab experience and gathering an understanding of the rituals of dabbing and what the dab subculture consists of. By engaging with other users over social media, novice dabbers are gaining insight that us

related to, and advice that are necessary to first-time dabbers to learn about the possible harms and the equipment associated with dab use.

Social learning theory was also present in the form of direct interaction between informants and first-time dabbers as well as through online interaction from dabbers who were all by themselves. The comments sections were also a place where social learning and interaction was frequent and possible. I also found evidence of underage youth (younger than 18 years old) dabbing on YouTube. When considering that many of today's youth frequent YouTube and that there are known risks associated with drug use at younger ages, this was found to be of particular concern, as it shows that dabbers are beginning use as young as 13-years old. Use at such young ages could have particular implications for these young users related to the life-course of their drug use, including the risks to youth associated with drug use at young ages and substance abuse disorders. By watching other young users on YouTube, this could lead to the normalization of dab culture to the younger/youth population who frequent YouTube more than any other age group. Finally, with all the themes presented in this research project considered, this study concludes that YouTube provides ample and sufficient content to allow for the socialization and normalization of dabbing to uninitiated users through a means of online interaction and interaction on social media platforms such as YouTube.

Limitations of the Study

The research population in my study consisted of subjects willing to put themselves on-camera doing drug-related activities to be published on the internet. This limited the research population because internet access and video publication cannot be obtained/accomplished by all dab users. More specifically, most users' drug activities occur in private. As a result, the sample used in my research may not be representative of the entire dab population, as most users are not okay with publishing their drug use on the internet for various reasons, some of which may include: possible repercussions from law enforcement, local communities, employers, and families regarding their (publicized) drug use among others. This shows that although the research population studied in my analysis is abundant for the data collection and the purposes of my study, it only consists of a select portion of dab users within the general population of the cannabis dabbing community and may not be applicable for all dab users' first-time experiences.

This study only covers the initial short-term effects of dab use and is not a complete study of the entirety of effects from dab use. My thesis project is an exploration of users' first-time dab experiences, and only includes the initial effects within the first few minutes of inhalation. All videos used in this study have been coded in full and for the duration of their respective videos, but most videos simply are not reflective of the entire experience of dab users. Most videos last no more than five minutes in duration.

and the effects of cannabis concentrate use are generally felt by users for much longer than the short period of time post-use revealed on these YouTube videos.

Due to financial, time, and institutional constraints, this study uses only secondary data collection and thematic analysis. The research would have been better served with the addition of primary data collection in the form of researcher constructed interviews and surveys to explore specific patterns that emerge within the analysis of cannabis concentrates and dab use. However, this study hopes to contextualize and provide a exploratory understanding of novice dab use to allow for more specific and detailed future research of this topic.

Recommendations for Future Research

“A Little Dab Will Do Ya” is the only research project known to date to analyze first-time dab users specifically, and also the only research study to connect social theory to dab use in general. By providing an exploratory analysis, this study hopes to give future researchers of this particular cannabis subculture some basis of understanding in relation to the processes, experiences, and rituals associated with first time dab users. This research project recommends that future studies engage and talk with dab users directly in the form of interviews with actual dab users, instead of interpretations of what is seen in representations of first time dab use on YouTube. Additionally, by talking to actual users and asking what their overall experiences of first time dabbing were like,

future researchers may be able to capture further understanding on the effects of dabs as described by the users themselves, instead of based on the first few minutes of the experience and effects that are shown on the videos discovered via YouTube.

In this research project, I also found evidence of possible social stigma related to cannabis dabbing, where the pro-cannabis community ostracize dab users specifically due to the extreme effects felt from this highly potent concentrated cannabis substance. Will dabbers become the “crack-heads” of cannabis culture? We may see a fragmentation of culture where people who use flower are socially interacting, communicating and getting transformed at a level that is tolerable and functional being compared to people that are using dabs and getting stoned out of their minds and now considered “cannabis junkies” so to speak. Future research may consider this possible divide within the cannabis community for study.

Stogner and Miller (2015) hypothesize a higher risk of accidents, falls, and passing out associated with dab use. Additionally, health researchers have found case studies with issues regarding lung health and cardio toxicity (Rickner et al. 2017 and Stahlman et al. 2017). Although this was a very small sample size, the physical effects such as passing out, puking, coughing, and struggling to breath that were shown in the data were considerable. This may be something human health and public health officials may want to research further in the future.

BIBLIOGRAPHY

- Altheide, David L. and Christopher J. Schneider. 2013. *Qualitative Media Analysis*. Thousand Oaks, CA: SAGE Publications.
- Antony, Mary, and Ryan Thomas. 2010. "‘This is citizen journalism at its finest’: YouTube and the public sphere in the Oscar Grant shooting incident" *New Media and Society*. 12(8):1280-1296.
- August, Karen. 2012. "Playing the Game: Marijuana Growing in a Rural Community" M.A. thesis, Department of Sociology, Humboldt State University.
- Bandura, Albert. 1971. *Social Learning Theory*. New York: General Learning Press.
- Becker, Howard S. 1953. "Becoming a Marihuana User" *American Journal of Sociology*. 59(3):235-242.
- Becker, Howard S. 1955. "Marihuana use and social control" *Social Problems*. 3(1):34.
- Becker, Howard S. 1967. "History, Culture and Subjective Experience: An Exploration of the Social Bases of Drug-Induced Experiences" *Journal of Health and Social Behavior*. 8(3):163-176.
- Berg, Bruce L, and Howard Lune. 2012. *Qualitative Research Methods for the Social Sciences 8th ed.* Upper Saddle River, NJ, 07458: Pearson Education.
- Booth, Martin. 2003. *Cannabis: A History*. New York, NY: Doubleday.
- Borodovsky, Jacob T., Lisa A. Marsch, and Alan J. Budney. 2018. "Studying Cannabis Use Behaviors With Facebook and Web Surveys: Methods and Insights." *Journal of Medical Internet Research*. 4(2):e48.
- Braun, Virginia, and Victoria Clarke. 2006. "Using thematic analysis in psychology" *Qualitative Research in Psychology*. 3:77-101.
- Budezz Inc. 2017. "Guy throws up from dab. Rocky’s first dab (OOPS!!!)." *YouTube*. April 5. Retrieved May 16, 2018 (<https://www.youtube.com/watch?v=nyfuGjm2FIk&index=16&list=PLznLAdCELYePFI8BAtdtUUYSkvluDehFa>).
- Burgess, Robert L., and Ronald L. Akers. "A Differential Association-Reinforcement Theory of Criminal Behavior" *Social Problems*. 14(2):128-147.
- Cannama. 2017. "Is Dabbing to Pot What Crack is to Cocaine?" *ESTROHAZE* June 18. Retrieved May 28, 2018 (<https://estrohaze.com/is-dabbing-to-pot-what-crack-is-to-cocaine/>).

- Chan, Gary C.K., Wayne Hall, Tom P. Freeman, Fason Ferris, Adrian B. Kelly, and Adam Winstock. 2017. "User characteristics and effect profile of Butane Hash Oil: An extremely high-potency cannabis concentrate" *Drug and Alcohol Dependence*. 178:32-38.
- Chau, Clement. 2010. "YouTube as participatory culture" Pp. 65-74 in *New Directions for Youth Development*, No. 128, edited by Marina Umaschi Bers and Gil G. Noam. California: Wiley Periodicals.
- Chenail, Ronald J. 2011. "YouTube as a Qualitative Research Asset: Reviewing User Generated Videos as Learning Resources" *The Qualitative Report* 16(1):229-235.
- Chiefingreen420. 2016. "My First time dabbing ** dabs**" *YouTube*. March 23. Retrieved May 16, 2018 (https://www.youtube.com/watch?v=FC_hdO3X614&list=PLznLAdCELYePF18BAtdtUYSkvluDehFa&index=14).
- Conti, Allie. 2018. "I Tried CBD Juul Pods and They Were Actually Pretty Great" *Vice News*. July 10. Retrieved July 10, 2018 (https://www.vice.com/en_us/article/kzkvww/i-tried-cbd-juul-pods-and-they-were-actually-pretty-great).
- Daniulaityte, Raminta, Ramzi W. Nahhas, Sanjaya Wijertne, Robert G. Carlson, Francois R. Lamy, Silvia S. Martins, Edward W. Boyer, G. Alan Smith, and Amit Sheth. 2015. "'Time for dabs': Analyzing Twitter data on marijuana concentrates across the U.S." *Drug and Alcohol Dependence*. 155:307-311.
- Daniulaityte, Raminta, Francois R. Lamy, Monica Barratt, Ramzi W. Nahhas, Silvia S. Martins, Edward W. Boyer, Amit Sheth, and Robert G. Carlson. 2017. "Characterizing marijuana concentrate users: A web-based survey" *Drug and Alcohol Dependence* 178:399-407.
- Dobnik, Verena. 2016. "Marijuana labs spawn lethal explosions across the country" *Los Angeles Times*. October 1. Retrieved June 28, 2018 (<http://www.latimes.com/nation/nationnow/la-na-pot-labs-20161001-snap-story.html>).
- Fairman, Brian J., C. Debra Furr-Holden, Renee M. Johnson. 2018. "When Marijuana is Used before Cigarettes or Alcohol: Demographic Predictors and Associations with Heavy Use, Cannabis Use Disorder, and Other Drug-related Outcomes" *Prevention Science* (May 17, 2018):1-9.
- Faupel, Charles E., Greg S. Weaver, and Jay Corzine. 2014. *The Sociology of American Drug Use* Oxford University Press: New York, NY.
- Ferrara, John Ross. 2017. "Weed Feed: Stop Blowing Yourself Up: There are Solvent-Free Dab Machines at Walmart" *Lost Coast Outpost*. July 10. Retrieved June 26, 2018

<https://lostcoastoutpost.com/weedfeed/2017/jul/10/stop-blowing-yourself-walmart-sells-dab-presses-/>).

- Gilbert, Avery, and Joseph Diverdi. 2018. "Consumer perceptions of strain differences in Cannabis aroma" *PLoS One* 13(2):e0192247.
- Greenson, Thadeus. 2017. "Rio Dell's Hash Lab Murder Case" *North Coast Journal*. September 21. Retrieved June 27, 2018 (<https://www.northcoastjournal.com/humboldt/rio-dells-hash-lab-murder-case/Content?oid=6186361>).
- Golub, Andrew, Bruce Johnson, Eloise Dunlap, and Stephen Sifaneck. 2004. *Journal of Drug Issues* 34(2):361-388.
- Hall, Wayne, and Louisa Degenhardt. 2015. "High potency cannabis: a risk factor for dependence, poor psychosocial outcomes, and psychosis" *British Medical Journal*. March 4. Retrieved May 26, 2018 (<https://www.bmj.com/content/350/bmj.h1205.long#>).
- Hallstone, Michael. "Updating Howard Becker's theory of using marijuana for pleasure" *Contemporary Drug Problems*. 29(4):821-845.
- Holm, Soren, Sveinung Sandberg, and Torsten Kolind. 2014. "The importance of cannabis culture in young adult cannabis use" *Journal of Substance Use* 19(3):251-256.
- I Love Dabs. 2014a. "Dabbing the old man out!" *YouTube*. October 14. Retrieved May 16, 2018 (https://www.youtube.com/watch?v=aF111FWRO_s&index=15&list=PLznLAdCELYePF18BAtdtUUYSkvlUDehFa).
- Kingston, Dan. 2017. "The Cannabis Concentrates Guide" *AZmarijuana*. October 2. Retrieved May 26, 2018 (<https://azmarijuana.com/images/the-cannabis-concentrates-guide/>).
- Krauss, Melissa J., Shaina J. Sowles, Shalinee Mylvaganam, Kidist Zwedie, Laura J. Bierut, and Patricia A. Cavazos-Rehg. 2015. "Displays of dabbing marijuana extracts on YouTube" *Drug and Alcohol Dependence* 155:45-51.
- Krishnan, Manisha. 2016. "How Weed Is Helping Opioid Users Beat Addiction" *Vice News*. December 17. Retrieved on May 29, 2018 (https://www.vice.com/en_us/article/ezxkvk/how-weed-is-curbing-opioid-addiction-for-some-canadians).
- Loflin, Mallory and Mitch Earleywine. 2014. "A new method of cannabis ingestion: The dangers of dabs?" *Addictive Behaviors*. 39:1430-1433.
- Maguire, Moira, and Brid Delahunt. 2017. "Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars" *All Ireland Journal of Teaching and Learning in Higher Education*. 8(3):3351-33514.

- MaryLovesGlass. 2015. "1,000 Subs DAB – First ever on or off camera" *YouTube*. December 9. Retrieved May 16, 2018 (<https://www.youtube.com/watch?v=dUvZS2XAdhY&list=PLznLAdCELYePFI8BAtdtUUYSkvluDehFa&index=17>).
- McNiff, Kath. 2016. "What is Qualitative Research?" *The Nvivo Blog - QSR International*. November 9. Retrieved May 23, 2018 (<http://www.qsrinternational.com/nvivo/nvivo-community/blog/what-is-qualitative-research>).
- Mead, George Herbert. 1934. *Mind, Self, and Society: From the Standpoint of a Social Behaviorist*. Chicago, IL: University of Chicago Press.
- Meehan-Atrash, Jiries, Wentai Lou, and Robert M. Strongin. 2017. "Toxicant Formation in Dabbing: The Terpene Story" *ACS Omega* 2(9):6112-6117.
- Miller Bryan Lee, John M. Stogner, and J. Mitchell Miller. 2015. "Exploring Butane Hash Oil Use: A Research Note" *Journal of Psychoactive Drugs*. January 11. Retrieved May 27, 2018 (https://www.researchgate.net/publication/291516855_Exploring_Butane_Hash_Oil_Use_A_Research_Note).
- Morgan, Sonya J., Susan R. H. Pullon, Lindsay M. Macdonald, Eileen M. Mckinlay, and Ben V. Gray. 2016. "Case Study Observational Research: A Framework for Conducting Case Study Research Where Observation Data Are the Focus" *Qualitative Health Research*. 27(7):1060-1068.
- Naslund, John A., Stuart W. Grande, Kelly A. Aschbrenner, and Glyn Elwyn. 2014. "Naturally Occurring Peer Support through Social Media: The Experiences of Individuals with Severe Mental Illness Using YouTube" *PLoS ONE*. 9(10):e110171 (<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0110171>).
- National Institute on Drug Abuse. 2018. "Opioid Overdose Crisis" *Drugs of Abuse*. March 2018. Retrieved May 26, 2018 (<https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis>).
- Nierengarten, Mary and John Stogner. 2016. "Dabbling in 'dabbing'" *Contemporary Pediatrics* 33(2):34-35.
- Nir, Sarah Maslin. 2016. "Chasing Bigger High, Marijuana Users Turn to 'Dabbing'" *The New York Times*. May 21. Retrieved June 27, 2018 (<https://www.nytimes.com/2016/05/13/nyregion/chasing-bigger-high-marijuana-users-turn-to-dabbing.html>).
- O'Connell, Brooke K., David Gloss, and Orrin Devinsky. 2016. "Cannabinoids in treatment-resistant epilepsy: A review" *Epilepsy & Behavior* 70(Pt B):341-348.

- Pedersen, Willy. 2014. "The powerful mix of capital and cannabis culture" *Addiction* 109(3):352-353.
- Peele, Stanton. 2014. "Normalizing Drug Use" *Psychology Today*. April 25. Retrieved May 26, 2018 (<https://www.psychologytoday.com/us/blog/addiction-in-society/201404/normalizing-drug-use>).
- Pierre, Joseph M, Michael Gandal, and Maya Son. 2016. "Cannabis-induced psychosis associated with high potency "wax dabs"" *Schizophrenia Research* 172(1-3):211-212.
- Pike, Haleigh. 2015. "Man dies more than a week after honey oil lab explosion" *KRCR NEWS CHANNEL 7*. April 28. Retrieved June 26, 2018 (https://krcrtv.com/archive/man-dies-more-than-a-week-after-honey-oil-lab-explosion_20160513173307528).
- Raber, Jeffrey C., Sytze Elzinga, and Charles Kaplan. 2015. "Understanding dabs: contamination concerns of cannabis concentrates and cannabinoid transfer during the act of dabbing" *Journal of Toxicological Sciences* 40(6):797-803.
- Reiman, Amanda, Mark Welty, and Perry Solomon. 2017. "Cannabis as a Substitute for Opioid Based Pain Medication: Patient Self Report" *Cannabis and Cannabinoid Research*. 2(1)160-166.
- Reinarman, Craig, and Harry Levine. 2004. "Crack in the Rearview Mirror: Deconstructing Drug War Mythology" *Social Justice* 31(1/2):182-199.
- Rohlfing, Sarah and Stefanie Sonnenberg. 2016. "'Who is really British anyway?': A thematic analysis of response to online hate materials" *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* 10(4).
- Rosenthal, Ed, and David Downs. 2014. *Beyond Buds -Marijuana Extracts- Hash, Vaping, Dabbing, Edibles, & Medicines*. Piedmont, CA. Quick American.
- Sagar, Kelly A., Ashley M. Lambros, Mary Kathryn Dahlgren, Rosemary T. Smith, and Staci A. Gruber. 2018. "Marijuana from concentrate? A national web survey assessing dab use in the United States" *Drug and Alcohol Dependence*. June 26. Retrieved July 2, 2018 (<https://www.sciencedirect.com/science/article/pii/S0376871618303375>).
- Salzmann-Erikson, Martin, and Duygu Hicdurmaz. 2016. "Use of Social Media Among Individuals Who Suffer From Post-Traumatic Stress" *Qualitative Health Research*. 27(2):285-294.
- Sandberg, Sveinung. 2013. "Cannabis Culture: A stable subculture in a changing world" *Criminology and Criminal Justice* 13(1):63.

- Schneider, Ruth. 2016. "3 badly burned in Rio Dell hash lab explosion" *Eureka Times-Standard*. November 12. Retrieved June 27, 2018 (<http://www.times-standard.com/article/NJ/20161112/NEWS/161119946>).
- Smart, Rosanna, Johnathan P. Caulkiins, Beau Kilmer, Steven Davenport, and Greg Midgette. 2017. "Variation in cannabis potency and prices in a newly legal market: evidence from 30 million cannabis sales in Washington state" *Addiction*. July 4. Retrieved May 23, 2018 (<https://www.ncbi.nlm.nih.gov/pubmed/28556310>).
- Smith, Aaron, and Monica Anderson. 2018. "Social Media Use in 2018" *Pew Research Center*. March 1. Retrieved May 28, 2018 (<http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/>).
- Stahlmann, Charles G., Michael McMahon, Nikunj A. Bhatt, Michael P. Perkins, and Andrew I. Philip. 2015. "Dabble with Danger: A Case of Severe Respiratory Failure Following Inhalation of Butane Hash Oil" *American Journal of Respiratory and Critical Care Medicine*. 191:A4596. Retrieved on May 26, 2018 (https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2015.191.1_MeetingAbstracts.A4596).
- Stogner, John M., and Bryan Lee Miller. 2015. "Assessing the Dangers of "Dabbing": Mere Marijuana or Harmful New Trend?" *Pediatrics*. 36(1):1-3.
- U.S. Food and Drug Administration (FDA). 2018. "FDA approves first drug comprised of an active ingredient derived from marijuana to treat rare, severe forms of epilepsy" *FDA News Release*. June 25. Retrieved July 3, 2018 (<https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm611046.htm>).
- Varlet, Vincent, Nicholas Concha-Lozano, Aurelie Berthet, Gregory Plateel, Bernard Favat, Mariangela De Cesare, Estelle Lauer, Marc Augsburger, Aurelein Thomas, and Christian Giroud. 2016. "Drug Vaping applied to cannabis: Is "Cannavaping" a therapeutic alternative to marijuana?" *Scientific Reports*. 6:25599.
- Ward, Andrew. "Are Cannabis Concentrates Becoming More Popular Than Flower?" *Potguide.com*. November 2. Retrieved June 26, 2018 (<https://potguide.com/pot-guide-marijuana-news/article/are-cannabis-concentrates-becoming-more-popular-than-flower/>).
- Weeding A Loud. 2018. "First Time Dab ever KILLT EM!" *YouTube*. February 13. Retrieved May 16, 2018 (<https://www.youtube.com/watch?v=c191A44XMec&list=PLznLAdCELYePF18BAtdtUYSkvluDehFa&index=5>).

- Zhang, Zhu, Xiaolong Zheng, Daniel Dajun Zeng, and Scott J. Leischow. 2016. "Tracking Dabbing Using Search Query Surveillance: A Case Study in the United States" *Journal of Medical Internet Research*. 18(9):e252.
- Zinberg, Norman E. 1986. *Drug, Set, and Setting: The Basis for Controlled Intoxicant Use*. New Haven, CT: Yale University Press
- Zinberg, Norman E., and Wayne M. Harding. 2012. "Control and Intoxicant Use: A Theoretical and Practical Overview" Pp. 24-32 in *Drugs and the American Dream: An Anthology*, edited by Patricia A. Adler, Peter Adler, and Patrick K. O'Brien. Hoboken, NJ: Wiley-Blackwell.