

Running Title: Boomers & MJ

The Baby Boom Generation and Marijuana Use: Future Implications

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Introduction to the Life Course Perspective

“Scholars and policy makers generally focus on old age as a distinctive life stage, isolated from the rest of the life course.” (Hareven, 2001) Today we understand that attitudes and behaviors are influenced not only by the current social climate, but also by people’s past experiences. Family life, the economy, social institutions, religion, and social movements all have an influence on all members of society. The life course perspective is a social theory which suggests that different people may experience the same events, but have different reactions at the time and have different outcomes in the future. Some of the variables that might cause people to experience things differently are socioeconomic status, gender, minority status, and even age.

Many Americans are familiar with the now-famous picture published in the 1970s of the young Vietnamese girl running naked down the street as her body burned with the napalm sprayed by U.S. troops. Most of us have seen the famous photo of the grief-stricken girl kneeling over the body of the slain Kent State University student after he had been shot down by National Guard Troops. Imagine how a 10-year-old, a 20-year-old, a 40-year-old, and an 80 year old might have reacted to, and been influenced by, these photos. The life course theory of aging would suggest that the ages of the persons would have an influence on both how they reacted to the photos, and how they might be changed at a later stage in their lives.

In the eighteen years following the end of World War II, 1946 to 1964, America experienced a demographic surge that is now called the “baby boom.” This generation of Americans is the one that coined the term “recreational drug use,” and they are going to bring their old habits with them right along into retirement (Marks, 2002). These baby boomers are the folks who participated most fully in the Vietnam War protests, the sexual revolution, the civil rights marches, and bra-burning feminist awakening. Their cultural icons included Timothy Leary, Gloria Steinham, Sputnik, the Summer of Love and Haight-Ashbury, Woodstock, Malcom

X, and Rolling Stone magazine. This generation of Americans came of age during a particular time in our history, and their values and behaviors in their old age will be different from their parents and grandparents because of the unique historical times they experienced as children, teenagers, and young adults.

This paper will focus attention to one aspect of boomer cultural development. In general, the baby boomer generation used more alcohol and more illicit drugs than their parents' or grandparents' generations (Marks, 2002). In particular, marijuana usage by baby boomers may become particularly problematic for both individuals and society. The problems will be due not only to the fact that marijuana usage remains illegal, but that our bodies change as we age and the use of alcohol and other drugs will affect us differently when we are older.

The Baby Boomers: Mixed Messages

The Scottsdale Progress Tribune (1995) writes about an episode of the "Roseanne" television series where Roseanne finds a bag of marijuana and has to decide how to deal with her children over this discovery. Of course the humorous part is that it turns out to be part of her own "stash" from 20 years before. She and Dan smoke it, get high, have a few giggles, and then vow to never use drugs again. Of course, everything is portrayed as very lighthearted and humorous. This is just one example of how casual marijuana use is being portrayed as normal behavior. The idea that marijuana is somehow in a different category than other illegal drugs, and therefore more acceptable to use if you have a reason or desire, is a pervasive one in our culture. The Roseanne message is clear, most, or all, of the baby boom generation enjoyed getting high back when they were young and before they gave up fun to become responsible parents.

The issue of marijuana use being a good thing or a bad thing is further complicated by all the media attention around the issue of medical marijuana. Eric Baily (2005) writes in the LA Times about a variety of senior citizens who achieve some sort of benefit from use of marijuana.

He writes about an 81-year-old grandmother who “tokes” marijuana every day to help control the nausea associated with her chemotherapy while her children alternately help her purchase the marijuana or disagree with its use. He notes, “*Patients* [emphasis mine] contend that cannabis helps ease the effects of multiple sclerosis, glaucoma and rheumatoid arthritis. It can calm nausea during chemotherapy. Research has found that cannabinoids, marijuana’s active components, show promise for treating symptoms of Parkinson’s disease and Alzheimer’s, and perhaps may have anti-cancer properties.” He cites an AARP opinion survey (Kalata, 2004) which found 72% of people 45 and over in favor of medical marijuana. This sort of reporting, however, is typical of much that is available in that it is largely based on popular opinions, special interest editorials, and is not based on hard science. The danger of this may be that it is not as factual or proven as it is portrayed.

The AARP surveyed (Kalata, 2004) 1,706 persons aged 45 and over in mid-November 2004. In addition to finding that 72% agree that adults should be allowed to use medical marijuana *if a physician recommends it* [emphasis mine, and curiously absent from the Bailey article], the survey had some conflicting opinions as well. 74% think that marijuana is addictive, and 30% report that they have smoked marijuana at some time. However, it should be noted that younger respondents were more likely to have used marijuana: 58% of those aged 45 – 49 versus 8% of those 70 and older. The AARP report reveals a changing attitude towards the usage of marijuana by baby boomers. As will be reviewed later, the opinions of baby boomers notwithstanding, scientific research may be telling us a different story about the benefits of marijuana.

Dr. David Demko, a gerontologist and journalist, asks, “What is AARP smoking?” He points out that along with any perceived benefits of cannabis usage by the general public are some very real concerns about the physiological and psychological effects of this psychoactive herb. Demko goes on to list multiple problems associated with marijuana usage that have been

documented in young adults and teenagers, including paranoia and addiction. Clearly the work of gerontologists will need to include sorting the good information from the bad, the scientific from the fictional, when it relates to marijuana usage by older adults.

Current Substance Use & Abuse by Older Adults

“In 2002 and 2003, 17.1 percent of persons aged 50 or older had smoked cigarettes, 45.1 percent drank alcohol, and 1.8 percent had used an illicit drug during the past month” is one finding of the National Survey on Drug Use and Health (Office of Applied Studies, 2005). Older adults are increasingly abusing alcohol and the use of illicit drugs, primarily marijuana, is also on the rise according to the Substance Abuse and Mental Health Services Administration’s (SAMHSA) Treatment Improvement Protocol (TIP) Series 26 (1998).

Tip 26 identifies several reasons substance use and abuse in older adults is overlooked by healthcare providers, including “insufficient knowledge, limited research data, and hurried office visits.” Other factors that further make identification of problems with alcohol and/or drug use in older adults difficult for healthcare providers include ageism and the fact that symptoms of substance abuse may be mistaken for dementia, diabetes, depression, or other common disorders of the elderly. Drug users problems “often first become evident at work, or in run-ins with the criminal justice system” (Marks, 2002) and older adults are probably going to be retired and are not likely to become criminals to support their drug use. Failure to identify and treat alcohol abuse and substance use in elderly patients can have serious consequences.

Gambert and Katsoyannis (1995) show that alcohol and drug use cause greater physical and psychological damage in older adults than in younger adults whose bodies can more readily eliminate the drugs from their systems. Biomedical changes that are typical in older adults that affect the way alcohol and other drugs are metabolized include a higher percentage of body fat to lean muscle mass, a reduction in water-soluble volume, and reduced liver

function. Older adults who use alcohol and/or drugs are more at risk for falls, illness, and socioeconomic decline according to Tartar.

The Need for Increased Treatment for Substance Abuse

At the 130th annual meeting of the American Public Health Association, Joseph Gfroerer, Michael Penne, and Michael Pennington presented an abstract which they later published (2003). That article cited “relatively high rates of substance abuse among the baby boom cohort”. They concluded that their higher rates of substance abuse in conjunction with the large size of the baby boom generation would result in a doubling in the need for substance abuse treatment for older adults (50+ in their study) by the year 2020. In real numbers this represents a rise from 1.6 million cases of substance abuse treatment for older adults in 2000 to 3.0 million cases in 2020. “This is the result of a 52% increase in the size of the older adult population (from 77.0 million to 112.5 million) combined with a 23% increase in their rate of treatment need (from 2.2% to 2.7%).”

SAMHSA TIP 26 (1998) projects that “further research is needed on the psychological effects of marijuana on older adults, because many children of the 1960s can be expected to carry this habit into old age.” The specific effects of marijuana use on the different organ system of older adults has been little studied. My review of the literature in this area turned up very little. However, some of the results were alarming. Marijuana use is positively correlated with triggering a myocardial infarction in work done by Mittleman, Lewis, Maclure, Sherwood, and Muller (2001). They also claim that marijuana use is associated with increase in heart rate, supine hypertension, and postural hypotension (symptomatic). They are also alarmed that the “generation born in the 20 years after the end of the Second World War” [baby boomers] has a high prevalence of marijuana use and have now become an age group prone to increased coronary artery disease. Marijuana use was associated with a five-fold increase in heart attacks in the first hour after use among older adults.

An Institute of Medicine report on marijuana and medicine notes that young people do not suffer from cardiovascular complications from marijuana use, but that marijuana use may pose a serious problem for older adults. They recommended that “studies to define the individual health risks of smoking marijuana should be conducted, particularly among populations in which marijuana use is prevalent” (Joy, Watson, & Benson, 1999).

Some researchers have established a link between cannabis use and recurrent stroke in younger patients, but the mechanism is unknown (Mateo, Pinedo, Gomez-Beldarrain, Basterretxea, & Garcia-Monco, 2005). This is typical in that the research is aimed at younger users of marijuana. However, since older adults are more at risk for stroke, there is probably a heightened risk for stroke for older marijuana users.

Delta-9-Tetrahydrocannabinol [THC] has been found to have a procoagulatory effect in an *in vitro* study (Deusch, Kress, Kraft, Kozek-Langenecker, 2004). This study found that blood platelets, when exposed to THC in a laboratory setting, tended to react by forming more clots. This has potential repercussions for older adults at risk for a stroke, heart attack, phlebitis, or other diseases for which blood thinners are indicated. The authors suggest that this be further tested on living subjects.

The potential for cardiovascular complications alone suggest a need for further studies of the physiological effects of marijuana usage as well as a need for treatment for individual with a physical or psychological addiction to marijuana usage. It suggests a need to educate older adults about the potential dangers associated with marijuana usage and an effort to prevent the widespread usage of cannabis by older Americans in a public health campaign.

The Need for Increased Prevention for Substance Abuse

Treatment is more costly than prevention both in terms of actual costs to treat and in greater societal costs associated with poorer health outcomes as a result of untreated substance abuse. Dr. Fred Blow writes that prevention programs, as well as early intervention

programs, are the most appropriate ways to minimize health care costs while maximizing health outcomes for older adults (Bartels, Blow, Brockman, Van Citters, 2005). The area of prevention services for substance abuse has not been well developed for the older adult population. The focus of most substance abuse prevention programs has been on teenagers and youth but not the elderly. Public health programs often overlook older adults as targets for prevention programming.

Some practices have been developed and proven to be effective in preventing substance abuse in older adults. These practices include brief alcohol intervention (Fleming, 1999; Barry 1998). Brief alcohol intervention consists of a series of questions a physician asks an older person to screen for alcohol use and possible abuse and some very brief teaching statements the physician can use to encourage the older adult to stop drinking or reduce their drinking responsibly (Barry 2001). This has been proven to be very effective and not take too much time on the part of physicians. Dr. Fred Blow and Dr. Kristen Barry, both researchers at the University of Michigan, have been pioneers in developing the brief intervention and brief therapy models of substance abuse prevention and treatment. Dr. Barry (1999) was the consensus panel chair for the development of TIP #34, Brief Interventions and Brief Therapies for Substance Abuse.

Dr. Blow was instrumental in developing an elder-specific alcohol screening tool, the MAST-G. This tool was developed from another tool that was being used to screen for problem drinking, but it was apparent that some of the questions were inappropriate, or not culturally competent for older adults. For instance, one of the questions asked if using alcohol had interfered with the person's ability to hold down a job or show up for work on time. Most older adults are retired, and so this question had no relevance. This information is from a personal interview conducted with Dr. Blow in 2004 at the First National Conference on Older Adults and Substance Abuse held in Fort Lauderdale, Florida.

Education is a tool that can be used in prevention. “Potential preventive interventions targeted specifically at older adults with substance abuse problems include communication and educational approaches, interventions to prevent drug interactions, interventions to prevent drinking and driving, preretirement counseling, family interventions, and interagency collaborations.” (Bartels, Blow, Brockman, Van Citters, 2005). All of these approaches can be considered as pertaining to the abuse of other drugs and not just alcohol. Education of older adults, their families, and caregivers can not occur without good research and the development of scientific facts about marijuana use in older adults.

The mental health and substance abuse systems have been slow to develop elder specific protocols for alcohol prevention. The development of elder-specific protocols for marijuana prevention is non-existent. It may be safe to assume that screening, brief intervention, and brief therapy methods which are effective for preventing alcohol abuse by elders might also be effective if modified for marijuana prevention; however that remains to be tested. There are dissimilarities between alcohol use and marijuana use that may interfere with the effective cross transfer of these technologies. Alcohol is legal while marijuana is illegal. Today’s older adults may be more receptive to interventions by physicians than the baby boomers. The physiological and psychological components of addiction may be different for the two substances.

A Problem Not Being Addressed: Casual Users & Late Onset Abusers

The Gfroerer study which predicts a doubling of the need for substance abuse treatment for older adults by 2020 categorized older adults as needing treatment if they met the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (2000) criteria for substance abuse or dependence.

The diagnostic criteria for Cannabis Abuse is as follows:

A. Cannabis Abuse: A destructive pattern of cannabis use, leading to significant social, occupational, or medical impairment.

B. Must have three (or more) of the following, occurring when the cannabis use was at its worst:

1. Cannabis tolerance: Either need for markedly increased amounts of cannabis to achieve intoxication, or markedly diminished effect with continued use of the same amount of cannabis.

2. Greater use of cannabis than intended: Cannabis was often taken in larger amounts or over a longer period than was intended

3. Unsuccessful efforts to cut down or control cannabis use: Persistent desire or unsuccessful efforts to cut down or control cannabis use

1. Great deal of time spent in using cannabis, or recovering from hangovers

2. Cannabis caused reduction in social, occupational or recreational activities: Important social, occupational, or recreational activities given up or reduced because of cannabis use.

3. Continued using cannabis despite knowing it caused significant problems: Continued cannabis use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been worsened by cannabis

This serious level of substance abuse and addiction may not be fully present in many individuals who choose to use marijuana. Indeed, many casual users may never recognize that they are experiencing “significant problems” or that their use of marijuana is “greater than

intended.” Just like alcohol use, many more may be using marijuana than have a clinically significant problem that would categorize them as a person needing treatment.

Not all older adults with a drug or alcohol problem has had a lifetime history of use. Some people are late onset users. Just as in the Roseanne episode previously referenced, many baby boomers have stopped using marijuana because of their employment (mandatory or random drug testing) or parental responsibilities. However, it seems intuitive that one’s notions of retirement are closely related to one’s notions of both recreation and leisure. In an informal exchange with an anonymous acquaintance, it was discovered that this 55 year old male (born 1950) plans to “smoke marijuana the day I retire” and plans to smoke it regularly. He explained that he is regularly tested as part of his job as an airline pilot. He can not even attend a rock concert, even though he would like to, because the exposure to the marijuana smoke in the air at the event center would be enough to trigger a positive result and would cost him his job. He stated he used to really enjoy getting stoned “now and again” when he was in college. When he is retired he plans to enjoy doing as he pleases. It should be noted that he had a quadruple bypass surgery last year, he takes two medicines for high blood pressure and one for hyperlipidemia. Before he makes such a choice, he would be better able to make an intelligent choice if he knows the how the marijuana will affect his heart and how it will react with his medications. He might also want to know what snack foods are allowed on the “Heart Healthy” diet his physician has ordered for him because marijuana is often an appetite stimulant, i.e. “the munchies.”

Another Problem Not Being Addressed: Prescription Drug Interactions

Older persons regularly consume on average between two and six prescription medications and between one and three over the counter medications (Larsen, Martin 1999). Much study has been made of the drug to drug interactions between alcohol and many commonly-prescribed medications for older adults. Fraser (1997) writes about alcohol use

interfering with the metabolism of many medications and being a leading risk factor for the development of adverse drug reactions. The interactions between psychoactive medications such as benzodiazepenes, barbiturates, and antidepressants and other medications can be problematic for older adults (Bartels, Blow, Brockman, Van Citters, 2005).

Herbal supplements can be dangerous when mixed with prescription drugs (Paddison, 2001). Many herbal remedies have a blood thinning effect and when mixed with prescription blood thinners may cause an internal bleed or increase the risk of a stroke by bleeding. Some herbal remedies may increase blood clotting. Echinacea, which boosts the immune system, is contraindicated for persons who take medications for lupus, arthritis, and organ transplantation because immune system suppression is called for. For the most part, the effects of marijuana when mixed with most prescription drugs are unknown.

One of the only studies found that specifically addressed marijuana's pharmaceutical interaction with another prescription drug indicated marijuana and tricyclic antidepressants do not mix well (Larkin, 1997). Similar articles for marijuana and other antidepressants such as selective serotonin reuptake inhibitors [SSRIs] were not found. In a personal interview with Dr. Mark Stratton, researcher and educator with the University of Oklahoma Health Sciences Center School of Pharmacy, it was learned that not much has been done in this field. Dr. Stratton is a geriatric specialist in the field of pharmacology. The interview was by telephone and occurred in approximately March of 2005. Dr. Stratton was asked where one might find scholarly articles about marijuana and prescription drug interactions for a workshop that was being developed. Dr. Stratton said that he was uncertain about such a list and would research it and reply later. A few days later he called to say that he was unable to find anything in the pharmaceutical literature on this topic. He was quite surprised by this obvious gap in the pharmaceutical literature.

Conclusions

There is much work to be done to prepare for the retirement and eventual senescence of the baby boom generation. The work of gerontologists is to promote successful aging on the individual level, prepare society for demographic changes, and protect the frail elderly. This work is incomplete because there are gaps in our knowledge. These gaps can be closed with scientific study of the biology, sociology, and psychology of aging.

Research must be done to replicate much of the work that has already been done in understanding alcohol interactions with commonly-used prescription drugs and over the counter drugs. This time, however, the interactions must include those with marijuana. Research establishing evidence based practices in both treatment and prevention of substance abuse specific to the unique needs of older adults must be conducted at universities and in clinical trials in doctor's offices and mental health centers. Finally, this research must not sit idly on university professor' shelves, but must reach the intended audience of older adults and aging network professionals. This research will for the base for better education that supports healthy aging. This research will provide the necessary evidence base that will spur funding for treatment and prevention programs.

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