

**FLORIDA AGRICULTURAL AND
MECHANICAL UNIVERSITY**

A COMPENDIUM

Eleven Research Mini-Grants

This compendium provides brief synopses of eleven mini-grants for applied studies awarded by the Medical Marijuana Education and Research Initiative to the dynamic faculty and their intellectually inquisitive student scholars at Florida Agricultural and Mechanical University for the project period of April 1, 2019 - August 31, 2020.

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On behalf of the Florida Agricultural and Mechanical University (FAMU) Medical Marijuana Education and Research Initiative (MMERI), we acknowledge and thank our Florida Legislature and Legislative Staff who have supported us; the Executive Office of the Governor and Cabinet; Florida Judiciary; the Florida Department of Health's Office of Medical Marijuana Use (OMMU); the Florida A&M University (FAMU) Board of Trustees, the President and leadership team, Alumni, faculty, staff, and students; community participants and partnerships; and the Medical Marijuana and Education Research Initiative External Advisory Council (MMERIEAC) for their unwavering support for MMERI and its education and outreach benefits to Floridians. Also, we recognize state and local law enforcement organizations, other public/private sector stakeholders and support systems for positively engaging us as we informed cities, counties, and various communities across our great state about marijuana for medical use and the consequences of the unlawful use of marijuana.

Additionally, we offer a very sincere salute to Dr. Cynthia Hughes Harris, Dean of the School of Allied Health Sciences, for working tirelessly to direct the 11 studies highlighted in this compendium. Noteworthy is the fact that in addition to guiding contextual inquiries for MMERI, Dr. Hughes Harris currently serves as Research Chair, as well as an active member on the Consortium of Medical Marijuana Clinical Outcomes Research Board at the University of Florida. Lastly, but certainly not least, we offer kudos, accolades, and the highest commendations to our dynamic FAMU faculty research mini-grant recipients and their intellectually curious student investigative assistants, who conducted invaluable applied studies designed to assist MMERI with education and outreach activities related to marijuana for medical use and the consequences of unlawful use of marijuana.



Dr. Cynthia Hughes Harris
Dean, School of Allied Health Sciences

FOREWARD

At the core of most investigations, whether applied, basic, or evaluative, are intellectual curiosity (learning for learning), problem solving and assessment. For many scholars, basic (e.g., pure, true, brave new frontiers) research represents their favorite, as it tends to focus on creating, enhancing, expanding, and improving theoretical concepts by adding to the existing body of knowledge. Unlike its counterpart, applied (most popular among social engineers), which is the purpose of basic research, is not primarily to find solutions. Moreover, there are several restrictions associated with basic research that often prohibit its correct application. In pure research, there are requirements of randomization, strategic sampling; pretest/posttest, control group, experimental group, and controlled environmental design issues (e.g., often extremely time consuming and equally costly).

Whereas a favorite among educators, social scientists, and other contextual societal everyday problem solvers, is applied research with fewer restrictions and a primary focus on timely intervention and preventive “practical” solutions to real world problems. Educating minorities and Floridians about marijuana for medical use and even a practical vaccine distribution strategy amid a global pandemic are examples of applied research. Contextual inquiries involve collecting, organizing, analyzing, reporting data, and offering imperatives as intervention strategies. When strategists think of data-driven decisions, applied research comes to mind. Although applied research typically does not receive the tributes for landmark studies and the notoriety of a scientific break-through, it is invaluable to individuals such as educators, community outreach personnel, policymakers, stakeholders, and governmental workers, who are committed to the advancement of humanity. For instance, MMERI staff and advisory council deliberated a contextual approach carefully, prior to the dissemination of the 11 FAMU faculty research mini-grants in the Spring of 2019 to better educate and reach minorities and Floridians, about marijuana for medical use and the consequences of unlawful use of marijuana.



Dr. Patricia Green-Powell
Executive Director, MMERI

EXECUTIVE SUMMARY

In April of 2019, MMERI awarded 11 research mini-grants to FAMU faculty to conduct applied studies for contextual perspectives and interventions on a wide range of issues related to marijuana and minorities' involvement with it as a medicinal alternative for qualified conditions as specified by Section 381.986, Florida Statutes, for one year ending August 31, 2020. Also, the contextual inquiries intensely focused on prevention strategies for unlawful uses of marijuana among all Floridians, but most especially in communities of color. Noteworthy is the fact that grants were disbursed among the following three colleges and schools respectively (listed in alphabetical order): colleges included Education; Pharmacy and Pharmaceutical Sciences; Social Sciences, Arts, and Humanities; as well as the schools of: Allied Health Sciences; Architecture and Engineering Technology; and Business and Industry.

The document starts with a historical perspective on the mini-grants, followed with the purpose, and rationale. The next section appropriately referred to as “synopses” starts with identifying the academic colleges, schools, and departments, as well as the names and titles of the grant recipients. In this section, anthological reviews include the study titles, populations, methodologies, summaries, outcomes, and impacts or potential for assisting MMERI with education and outreach efforts in Florida as related to medical marijuana and knowing the consequences of unlawful usage. Excerpts from the findings include:

Allied Health Sciences

A statistically significant relationship existed between increased knowledge and positive perception of medical marijuana and a socio-economic \$50,000 annual income group; however, such was not the case for those below the \$30,000.

Architecture and Engineering

The study revealed a critical need for medical marijuana education in the high-risk field of construction for worksite safety issues.

Architecture and Engineering

Findings did not support a relationship between existing medical marijuana dispensary locations in Tallahassee and areas of crime, but it was revealed that future locations need deliberation in regard to the critical issue of equal access.

Business and Industry

Current legislation requires that Florida medical marijuana treatment centers (MMTC) be a vertically integrated entity, which is a major barrier to entry for ethnic minority entrepreneurs due to high start-up costs, thus creating a governmentally-regulated monopoly.

Health Education

Study participants had an overwhelming amount of support of medical marijuana as a modality to improve both physical and mental health.

Pharmacy and Pharmaceutical Sciences

Findings reveal that pediatric parent/caregiver participants had nominal (limited) knowledge and needed better understanding about marijuana for medical use.

Pharmacy and Pharmaceutical Science

Findings revealed participants would cease using several prescription drugs for pain, anxiety and medical problems after becoming medical marijuana patients and all patients commented on how expensive it is to obtain medical marijuana.

Psychology

The study revealed that both mental health and neuropsychological functioning are correlated with unlawful uses of marijuana.

Psychology

There appeared to have been significant correlations between marijuana use and mental health variables (depression, suicide, anxiety, overall well-being, and life satisfaction) for the subjects in the study; and participants' scores improved on culturally sensitive marijuana prevention from the pre to post assessments.

Psychology

In the study, educational interventions were statistically correlated with improving substance/marijuana-related awareness areas and smoking abstinence efficacies in participants.

Social Work

The study revealed a need for marijuana education, especially among minorities who experience post-traumatic stress and other qualifying conditions.

Following a brief summary, the “reference” section citing each investigator is provided as well as a directory with the grant recipients' contact information.

A COMPENDIUM:

Eleven Research Mini-Grants Awarded by FAMU Medical Marijuana Education and Research Initiative

INTRODUCTION

Background

Florida Agricultural and Mechanical University (FAMU) received funding for its Medical Marijuana Education and Research Initiative (MMERI) to establish a national source of information regarding marijuana's impact on minority communities, including conducting contextual (e.g., applied) inquiries and intervention strategies to assist with education, outreach, policy development and prevention of illegal usage as well as to create and maintain a repository for aggregating other evidence-based inquiries. Additionally, MMERI created an arena that contributes to exchanging ideas to raise awareness and create opportunities for positive change. Although the original intent, pursuant to the announcement, was to support only ten (10) small applied/intervention FAMU faculty mini-grants per year, an impartial panel of experienced campus researchers initially selected 14 potential mini-grants for funding. However, three grant recipients selected to rescind the award due to mitigating circumstances. Ultimately, MMERI awarded 11 mini-grants to faculty to conduct applied studies on a wide range of issues related to marijuana and minorities' involvement with it as a medicinal approach for qualified conditions as specified by Section 381.986, Florida Statutes. Also the contextual inquiries intensely focused on prevention strategies for unlawful uses of marijuana among all Floridians, but most especially in communities of color.

Faculty research mini-grant recipients agreed to use some of the budgeted amount to actively participate in a symposium at MMERI Annual Conference. Grant recipients were expected to present visual graphics and an oral presentation of their applied research findings at the MMERI's first annual conference during the fall of 2020. Unfortunately, due to the COVID 19 global pandemic, the conference was postponed in keeping with CDC guidance as related to responsible social distancing.

Purpose:

The synopses of all 11 studies will add to MMERI's burgeoning repository of information on marijuana and will be used to inform public policy in Florida and beyond.

Rationale:

The following five (5) reasons were given for the Faculty Research Mini-grant Program:

- 1.** Foster new pilot applied research (e.g., perspective/intervention/prevention) projects that enhance the capacity of faculty at FAMU, using both quantitative and qualitative methods;
- 2.** Promote contextual collaborative activities between FAMU faculty, students and community members;
- 3.** Provide data that can serve as preliminary or baseline observations for larger educational grants and identify funding sources that are appropriate for the next steps following the MMERI mini-grants;
- 4.** Promote increased interdisciplinary dialogue and exploration of similarities and differences between Florida communities relative to the medicinal potential of medical marijuana and the negative impact of unlawful uses; and
- 5.** Promote intervention, policy and strategies focused on issues related to the use of medical marijuana in the State of Florida.

As a touchstone for scholars of all ages and education levels related to the subject of marijuana for medical use and the consequences of unlawful use of marijuana, FAMU's faculty is in a unique position to implement on-going applied studies. Hence, every effort will be made to ensure the findings are shared with communities across the state. A copy of the Compendium will be stored in the MMERI Repository located on its website: www.mmeri.famu.edu

SYNOPSIS

College of Education

Study Title

An Examination of the Perceived Effects of Medical Marijuana

Grant Recipient

Brian Hickey, Ph.D., CSCS*D, TSAC-F*D, Associate Professor, Department of Health and Physical Education



*Brian Hickey, Ph.D.,
CSCS*D, TSAC-F*D*

Population

The study consisted of an online assessment of 111 FAMU student participants.

Methodology

An online survey was administered to anonymous student volunteers during the summer of 2020 to assess their perceptions regarding the effects of prescription cannabinoids. Qualtrics software was used to administer the survey and analyze the data.

Summary

The researcher assessed students' perceptions on the effects of prescription cannabinoids. SPSS and Qualtrics Crosstabs were used to extract descriptive statistics with comparative analyses, which revealed participants viewed marijuana as an effective health aid to a myriad of physical and mental health conditions. It was also discovered participants indicated that marijuana could reduce opioid dependence/abuse; moreover, participants advocated for marijuana approval in athletics and for the removal of it as a banned substance.

Outcomes/Conclusions

Among FAMU college participants in the study, there was an overwhelming amount of support of medical marijuana as a modality to improve both physical and mental health.

Applied Research – Impact on MMERI

MMERI may wish to use findings to educate shareholders about medical marijuana as the modality to improve both physical and mental health.

College of Pharmacy and Pharmaceutical Sciences

Study Title

Assessing the Knowledge and Perception of Pediatric Patient Caregivers on Medical Marijuana

Grant Recipients

Askal Ali, Ph.D., Assistant Professor, and Fatimah Sherbeny, Assistant Professor, College of Pharmacy and Pharmaceutical Sciences



Askal Ali, Ph.D.

Population

The subjects in this study were 23 parents and caregivers of pediatric patients (ages 0-18) via social media and as referred by 138 pediatric cancer doctors.

Methodology

A 45-item survey was developed and sent to pediatric cancer centers and doctors via information provided by the University of Florida's Bureau of Economic and Business Research to request consent of pediatric patients' (ages 0-18) parents and caregivers. The survey was shared with Floridians via social media platforms, word of mouth, the Florida Association of Pediatric Tumor Program and medical marijuana prescribers. Response data were analyzed using descriptive statistics and comparative analyses.

Summary

Since the use and benefits of medical marijuana for pediatric patients with cancer remains controversial, the study aimed to measure the patient caregivers' knowledge, attitudes and perceptions of medical marijuana. The responses to an online survey revealed that parents/caregivers have little knowledge about medical marijuana and there appears to be a need for better understanding from this population.

Outcomes/Conclusions

The responses to an online survey revealed that parents/caregivers have little knowledge about medical marijuana, and there appears to be a need for better understanding from this population. Analyses of the responses reflected the following: in regard to medical marijuana, 44% of respondents had very little knowledge and 22% had a lot or some knowledge; on side effects, 44% had little knowledge, while 56% knew a great deal; as far as having their child use medical marijuana, 38% were neutral or comfortable with it, 50% were worried. Finally, 37.5% indicated that the benefit of medical marijuana outweighs the cost and side effects.

Applied Research - Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders of the need for pediatric parents/caregivers to have accurate and current information on medical marijuana. Moreover, MMERI should recommend an expansion of this small study to a larger population to focus statewide.

Study Title

Mixed Methods Study of Medical Marijuana Use Among Minority Patients

Grant Recipients

John Luque, Ph.D., MPH, Arinzechukwu Okere, PharmD, MS, MBA, BPCS, and Paula Williams, MPH, College of Pharmacy and Pharmaceutical Sciences



John Luque, Ph.D., MPH

Population

The subjects in this study first consisted of surveying 196 medical marijuana Floridians statewide between the ages of 19 -77, with 47 the average age; 69% were females and 31% were males; 87% White, 6% Black, 6% Hispanic and 2% Asian; the median household income for respondents was between \$41,000 and \$60,000; and 34% of the respondents were cigarette smokers. Secondly, 13 diverse participants (7 Whites, 3 Blacks, 2 Hispanic and 1 Asian ranging in age from 25-55, with the average age of 38) were interviewed in person or over the phone.

Methodology

The study consisted of a mixed-methods approach including an online statewide survey and qualitative (open-ended) interviews of a small sample of diverse patients to: (1) determine the social, economic, and health-related factors impacting the use of medical marijuana by patients; and (2) evaluate perceived therapeutic benefits of medical marijuana by minority patients, as well as the preference for medical marijuana administration (e.g., florals, oils, edibles, etc.).

Summary

Studies in the U.S. revealed that medical marijuana use is predominantly among Whites, but less prevalent among Blacks, Latinos and other minority populations for various reasons. This pilot mixed-methods study was with adult medical marijuana patients. In phase 1 the researchers used an adapted version of a previously validated patient survey in medical marijuana treatment centers to explore the therapeutic benefits of medical marijuana for pain alleviation, overall well-being and other beneficial effects in a diverse patient population. Statistically significant differences were found by ethnicity. Blacks reported higher satisfaction with the effects of medical marijuana than Whites on the following indicators: increased appetite ($p=0.001$), decreased seizures ($p=0.045$), and increased energy ($p<0.001$). In terms of perceived benefits or preference for administration, the researchers did not identify any differences based on race and ethnicity of the patients. Most patients preferred vaping for administration. Findings from phase 2 interviews revealed participants would cease using several prescription drugs for pain, anxiety and medical problems after becoming medical marijuana patients. All patients commented on how expensive it is to obtain medical marijuana.

Applied Research – Impact on MMERI

MMERI may wish to educate shareholders on the need to understand patient's attitudes toward the use of medical marijuana, as well as vaping as a preferred method, and the potential barrier of cost.

College of Social Sciences, Arts and Humanities

Study Title

Exploring the Relationships Between Medical Marijuana Awareness and Willingness to Use as a Therapeutic Intervention Among Individuals of Minority Races

Grant Recipient

Gari Tookes, Ph.D., Assistant Professor, Department of Social Work, College of Social Sciences, Arts and Humanities



Gari Tookes, Ph.D.

Population

The subjects in this study were 114 participants, 63% between the ages of 18-35, 89% Black, 90% Floridians.

Methodology

The study used a mixed-method research design to explore trauma, medical marijuana awareness, and willingness to use as a therapeutic intervention among minority races. Data were collected and analyzed using Qualtrics analytics to reveal tallies, percentages, and measures of central tendency.

Summary

With the help of student assistants, the researcher used a mixed-method research approach to “explore” the awareness and willingness of individuals among minority races to utilize medical marijuana as an intervention option in psychotherapy treatment in lieu of psychotropic medication to a targeted, more general, at-risk population (minorities). Data were collected online and Qualtrics analytics were used for aggregate and analyses. Findings revealed: a combined total of 76% of the participants indicated either having (57%) or maybe/possibly (19%) having experienced or witnessed traumatic events; of those aforementioned respondents, 65% indicated having experienced disturbances about the traumatic event. Before receiving education materials on medical marijuana the average rating was 4.9 on a scale of 1-10 on awareness of guidelines for medical marijuana, but afterwards an average of 6.9 of awareness was shown; average rating of 7.02 on a scale of 1-10 regarding willingness to consider medical marijuana as an intervention in therapeutic treatment before training, whereas afterward there was a slight improvement to a rating of 7.43.

Outcomes/Conclusions

The study draws out the need for marijuana education, especially among minorities who experience post-traumatic stress and other qualifying conditions. One of the greatest strengths of the project was it involved student researchers who assisted in quickly gathering data in a short period of time.

Applied Research – Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders about medical marijuana as an alternative treatment or intervention for individuals experiencing post-traumatic stress and other mental and physical health qualifying conditions.

Study Title

Marijuana, Mental Health and FAMU

Grant Recipients

DeAnna Burney, Ph.D., and Huijun Li, Ph.D., Department of Psychology, College of Social Science, Arts and Humanities



DeAnna Burney, Ph.D.

Population

Stage 1 consisted of 12 focus groups of approximately 10 per with 119 college student participants (Female = 83, Male = 36) from FAMU. Stage 2 consisted of 850 participants [female = 574, males = 151, unknown gender = 125; age range from 18 to 55, with most participants 58% between ages 21 to 23]. In Stage 3 220 participants completed on-line psychoeducation training and pre/post-tests.

Methodology

The study involved a three-stage process. Stage 1 consisted of qualitative research to explore student marijuana use pathway and attitudes, culturally appropriate strategies to reduce it use and related crimes and violence via the recording and transcribing of 12 focus groups in 50-minute sessions. Stage 2 consisted of an epidemiological study of intergenerational marijuana use on FAMU campus to examine the relationship between marijuana use and mental health status and illegal behaviors. Stage 3 consisted of developing a culturally sensitive marijuana prevention and intervention psychoeducational training program.

Summary

MMERI Grant Recipients conducted a three-stage study to (1) explore student marijuana use pathways and attitudes, culturally appropriate strategies to reduce its use and related crime and violence; (2) to examine the relationship between marijuana use and mental health as well as illegal behavior; and (3) to develop a culturally sensitive marijuana prevention and intervention psychoeducational training program. The following were the most noteworthy findings: (a) marijuana use has a significant negative impact on African American young adult participants' mental health; (b) there appears to be significant correlations between marijuana use and mental health variables (depression suicide, anxiety, overall well-being, and life satisfaction); (c) intergenerational influence and patterns of marijuana use as a coping mechanism was observed; and (d)) the analysis of educational training modules indicate that participants scores improved on culturally sensitive marijuana prevention from the pre to post assessment.

Outcomes/Conclusions

Given the findings, MMERI may consider supporting other research projects that use innovative technologies to provide culturally and developmentally appropriate education to African American young adults and extending to other age groups.

Applied Research - Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders that (1) marijuana education is necessary to its impact on mental health; (2) there appears to be a statistically significant correlation between marijuana and mental health status (e.g. depression, suicide, anxiety, well-being, and life satisfaction); and (3) benefits from marijuana training.

Study Title

Marijuana Wellness Intervention on Community, Coping, Substance-Awareness, Self-Efficacy, and Self-Regulation and Education

Grant Recipients

Novell Tani, Ph.D., Assistant Professor, and Arie Christon, M.S., Department of Psychology, College of Social Sciences, Arts and Humanities



Novell Tani, Ph.D.

Populations

The subjects in this study were 210 unduplicated community participants from surrounding neighborhoods, businesses, and institutions (i.e., barber/beauty shops, churches, clinics, schools etc.).



Arie Christon, M.S.

Methodology

The overall study goal was to determine if educational interventions improve substance/ marijuana-related awareness and smoking abstinence efficacies in participants. The researcher used several statistical analyses, including correlative and regression analyses on key variables.

Summary

The following findings were shared as having statistically significant correlations: (1) as access to marijuana increased, so did participants' general knowledge about it; (2) as access to marijuana increased, so did mental disengagement coping techniques; (3) as total marijuana knowledge value improved, so did anxiety levels; (4) as education level increased, so did marijuana knowledge; and Stepwise Regression (Prediction) showed (5) depression and anxiety proved positively predictive of substance use coping, while levels of abstinence self-efficacies proved indicative of lower substance use coping.

Outcomes/Conclusions

Indeed, it appears that educational interventions are statistically correlated with improving substance/marijuana-related awareness and smoking abstinence efficacies in participants.

Applied Research – Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders about the need to improve substance/marijuana related awareness.

Study Title

To What Extent Do Mental Health and Psychosocial Factors Predict Risk for Misuse and Neuropsychological Impairment in African American Marijuana Users?

Grant Recipient

Gwendolyn Singleton, Ph.D., Associate Professor, College of Social Sciences, Arts and Humanities



Gwendolyn Singleton, Ph.D.

Population

The subjects in this study were 89 medical marijuana, non-medical marijuana, and non-user participants.

Methodology

Using snowball sampling, 89 medical, unlawful, and non-user community participants responded via an online survey about health, behavior stress, coping, and thoughts and neuropsychological assessment about marijuana. In addition to descriptive statistics with comparative analyses, the researcher used a bivariate analysis called a Pearson Product Moment to determine the correlation coefficient to assess for relationships.

Summary

To explore the mental health and psychological factors that relate to risk for cannabis use disorder, snowball sampling was used to recruit community participants to take an online survey about mental health and behavior, stress, coping, and thoughts about marijuana. Moreover, the researcher examined the extent to which neuropsychological functioning relates to risk of cannabis-related disorder. It was found that of the 89 participants, 40% were cannabis users; of the users, 61% used unlawfully while 11% used medical marijuana; and 25% were combination users (medical and non-medical). Although psychosocial factors were not statistically significantly correlated with neuropsychological functioning nor risk for marijuana misuse, mental health status was found to have a positive correlation with the functioning.

Outcomes/Conclusions

The study revealed that of the reported 35 cannabis users who responded, four (approximately 11%) were medical marijuana users compared with 21 (61%) non-medical users, and nine (25%) were combination users. The findings also revealed that mental health is positively correlated to neuropsychological functioning. Moreover, both mental health and neuropsychological functioning are correlated with unlawful uses of marijuana.

Applied Research – Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders about mental health and neuropsychological functioning correlation with unlawful uses of marijuana.

School of Allied Health Sciences

Study Title

Assessing the Knowledge and Perceptions of Community Members Specific to the Compassionate Use of Marijuana

Grant Recipients

Lon'Tejuana Cooper, Ph.D., MHA, RHIA, CPM, Associate Professor, and Marisa Lewis, Pharm.D., MPH, Associate Professor, School of Allied Health Sciences



Lon'Tejuana Cooper, Ph.D.

Population

The subjects in this study were 218 community members and students. Most of the subjects attended the FAMU Harambee Festival in February 2020 in Tallahassee. Of the participants, 67.3% were females, 24.8% males and 7.9% identified as others, or data were missing.



Marisa Lewis, Pharm. D., MPH

Methodology

This study had two comparative hypotheses: (1) the perceptions of medical marijuana will vary by the age of respondents, with older individuals reporting a stronger negative perception; and (2) there is an increased knowledge and positive perception of medical marijuana for those at varying socio-economic statuses. Researchers used the p-value to determine if there existed any statistically significant differences.

Summary

To better understand the knowledge and perception of individuals about medical marijuana, the researchers explored differences by age group and income group. The researchers used chi-square analyses to examine the data bivariate. The bivariate results by respondent age group (i.e., 18-25 and 60+), revealed no statistical differences in knowledge and perceptions by age (p-value of 0.23). Thus, based on these findings, the first hypothesis was rejected. The researchers then analyzed the data to determine if knowledge and perception of medical marijuana had a positive association with income group (i.e., those who made \$50,000 or more and those make less than \$30,000). The chi-square results were significant (p-value of 0.03). Thus, individuals with higher incomes reported greater knowledge about medical marijuana. Based on these findings, the second hypothesis was accepted.

Outcomes/Conclusions

In this study population, we confirmed that socioeconomic status, particularly higher income was positively associated with knowledge of medical marijuana. However, due to our small sample size, a larger study should be undertaken. Additionally, there should be a continued focus to educate minority community members who have lower incomes (less than \$30,000), about medical marijuana.

Applied Research - Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders about knowledge and perception of medical marijuana.

School of Architecture and Engineering Technology

Study Title

An Investigation on Marijuana Consumption in the Construction Industry in Florida

Grant Recipient

Behnam “Ben” Shadravan, Ph.D., Assistant Professor, School of Architecture and Engineering Technology



*Behnam Shadravan,
Ph.D.*

Population

The subjects in this study were 150 employees (e.g., 81% male and 19% female) in various job categories in construction from various regions throughout Florida. All of the participants were 18 or older.

Methodology

In addition to a literature review, the investigator used a survey and 150 construction employees participated to tabulate responses and percentages to each item using descriptive statistics and comparative analyses.

Summary

To understand and describe issues related to marijuana consumptions in the construction industry in Florida, the MMERI grant recipient sent surveys to 100 construction workers in various job descriptions. The responses were tabulated and percentages determined to show the following noteworthy findings: (1) many construction workers with prescriptions for medical marijuana decided not to use the legal drug for fear of termination; (2) 50% of the respondents believed unlawful use of marijuana should be legalized; (3) respondents indicated the it is safe to work in construction immediately after or up to 72 hours, with 4 hours as the median response, using marijuana; (4) high-level managers are concerned that marijuana should be banned in the construction industry.

Outcomes/Conclusions

The study revealed urgency in the high-risk field of construction regarding the critical need for education.

Applied Research - Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders (e.g., general public, patients, caregivers, legislators, local policy makers, etc.) via its courses, forums, podcasts, television commercials and web postings about the empirical evidence related to medical and unlawful marijuana issues in the construction industry. Moreover, MMERI may wish to recommend an expansion of this local study to a larger population statewide.

Study Title

Medical Marijuana Dispensary Locations and Neighborhood Crime

Grant Recipient

Andrew Chin, Associate Dean/Professor, School of Architecture and Engineering Technology



Andrew Chin

Population

The subjects in this study were 10 Medical Marijuana Treatment Centers and Medical Marijuana Dispensaries (MMDs) as well as Tallahassee/Leon GISD Staff.

Methodology

The study involved a two-phase descriptive approach using (1) Tallahassee-Leon County's Geographical Information System Department (TLC GIS) to identify the locations of MMDs and their proximity to crime; and (2) to investigate accessibility to existing MMDs using public transportation.

Summary

Pursuant to Sec. 381.986, F.S., Florida unlike other states, sole land use restriction is limited to prohibiting MMDs from a 500-foot radius of real property that comprise public and/or private K-12 schools. The project goals were to (1) explore existing MMDs in Tallahassee proximity to areas of crime concentrated within certain lower socio-economic communities, as well as (2) investigate accessibility to MMDs. Finding reveals there is no relationship between the locations of MMDs and crime. Additional findings revealed a need for formal deliberation on where to locate future MMDs as related to local residents who rely on public transportation to ensure equal access.

Outcomes/Conclusions

Findings did not support a relationship between existing MMDs locations in Tallahassee and areas of crime, but they did reveal that future locations need to be deliberated in regard to the critical issue of equitable access.

Applied Research – Impact on MMERI

MMERI may wish to use findings to educate statewide shareholders about equity on MMDs locations and accessibility.

School of Business and Industry

Study Title

Exploring Minority Entrepreneur Access to Opportunities to the Medical Marijuana Industry

Grant Recipients

Jennifer Collins, Ph.D., Assistant Provost and Associate Professor, and LaTanya White, MBA, Instructor, School of Business and Industry



Jennifer Collins,
Ph.D.

Population

The subjects in this study were applicants for Medical Marijuana Treatment Centers (MMTC).

Methodology

This descriptive study used a content analysis of the MMTC application process from 2015 by reviewing the scoring rubric to assess data to determine if there were barriers to entry in the Florida medical marijuana industry.

Summary

In 2018, the U.S. medical marijuana industry reported approximately \$4.5 billion in sales and around 28,000 businesses, with an expected growth in sales to at least \$25 billion by 2025. In Florida, the only entry point into the medical marijuana market requires companies to qualify to manage cultivation, processing and dispensing functions for business and submit a non-refundable application fee of \$60,000. The study explored the MMTC application process from 2015 by reviewing the scoring rubric for barriers to entry in the medical marijuana industry for minority businesses. Next, the researchers developed strategies to mitigating those barriers and provided an education action plan for potential minority business ownership. Findings revealed the existence of two “major” barriers: (1) high start-up costs, and (2) statutory requirements/competitive advantage.

Outcomes/Conclusions

(1) Current legislation requires that Florida MMTC’s be a vertically integrated entity, which is a major barrier to entry for ethnic minority entrepreneurs due to high start-up costs, creating a governmentally regulated monopoly. However, there is an appeal before the Florida Supreme Court with a ruling expected in October 2020, and an amendment could be influenced by this study. (2) Another barrier is the language in the application that requires knowledge and expertise that favors existing MMTCs, since there are no ethnic minority marijuana businesses licensed in Florida. Although the diversity plan “requirements” in the revised 2017 application reference minority involvement, the language should identify specific minority groups like the federal definition of minorities that define ethnic minorities and not include women and veterans as a preferred option.

Applied Research – Impact on MMERI

MMERI may wish to use findings to educate Floridians, most especially minorities, about entrepreneurial opportunities statewide as it relates to success in the medical marijuana industry as related to MMTCs.

SUMMARY

This compendium represented a compilation of contextual inquiries via 11 research mini-grants from MMERI to FAMU faculty to improve education and outreach to minorities and Floridians about marijuana for medical use and the consequences of unlawful use of marijuana. The content of this document provided interested parties with not only an overview of the applied inquiries and the principal investigator’s contact information, including position title, academic area, physical and email addresses, but also the implication for enhancing, expanding, and improving the Florida A&M University (FAMU) Medical Marijuana Education and Research Initiative (MMERI) legislative mandate as indicated:

Section 381.986, Florida Statutes (F.S.), better known as Florida’s medical marijuana law, includes a funding provision that entrusts Florida Agricultural and Mechanical University with “educating minorities about marijuana for medical use and the impact of the unlawful use of marijuana on minority communities.” The following excerpt from the statute set in motion the creation of FAMU’s Medical Marijuana Education and Research Initiative. To read the entire statute, go to http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0300-0399/0381/Sections/0381.986.html

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