Older Adults' Experience of Using Cannabis: Mixed-methods Systematic Review*

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Abstract

Purposes: To identify and synthesize older adult experiences of using cannabis.

Design: A mixed-method systematic review based on PRISMA guideline.

Methods: A search for quantitative and qualitative studies published in English or Thai from January 2012 to June 2022 was conducted using Pubmed, CINAHL, PsycInfo, Google Scholar, Sciences direct and ThaiJO databases. Eight studies were found to be relevant and were analyzed using thematic analysis. The findings were synthesized and presented in this review.

Main findings: The findings indicated that older adults perceived cannabis use as a legitimate treatment option while some experienced apprehension of public disclosure. Cannabis use was influenced by important reasons for disease management, resulting in the seeking of cannabis from both a license store and a non-license store. The multiple routes of administration for cannabis, such as inhalation and edibles, and its positive and negative effects were reported. The main barrier to cannabis use among older adults is lack of knowledge regarding cannabis.

Conclusion and recommendations: This mixed methods systematic review suggests that perceived benefits of cannabis may lead to more cannabis use in older adults. Healthcare providers should monitor cannabis use in older adults and provide accurate information about cannabis, especially focusing on potential dangers of its short-term desired effects. Future research should explore the experience of cannabis use among older adults, such as new users and people who have used it for a long time, to better understand the pattern of usage.

Keywords: cannabis, experience, mixed-methods systematic review, older adult

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ประสบการณ์การใช้กัญชาของผู้สูงอายุ : การทบทวนวรรณกรรมอย่างเป็นระบบแบบผสมผสาน

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บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษาและสังเคราะห์ประสบการณ์ของผู้สูงอายุในการใช้กัญชา

รูปแบบการวิจัย: การทบทวนวรรณกรรมอย่างเป็นระบบแบบผสมผสาน ตามแนวทางของ PRISMA

วิธีดำเนินการวิจัย: สืบค้นหลักฐานเชิงประจักษ์ที่เป็นงานวิจัยเชิงปริมาณและเชิงคุณภาพ ซึ่งตีพิมพ์เป็นภาษาอังกฤษหรือภาษาไทยตั้งแต่เดือนมกราคม ค.ศ. 2012 ถึงเดือนมิถุนายน ค.ศ. 2022 โดยใช้ฐานข้อมูล Pubmed, CINAHL, PsycInfo, Google Scholar, Sciences direct และ ThaiJO ข้อมูลจากงานวิจัยจำนวน 8 เรื่อง ถูกนำมาวิเคราะห์และอธิบายโดยใช้การวิเคราะห์แก่นสาระ

ผลการวิจัย: ผลการสังเคราะห์นี้ระบุว่าผู้สูงอายุรับรู้เกี่ยวกับการใช้กัญชาว่าเป็นทางเลือกของการรักษาที่ถูกต้องตามกฎหมาย ขณะที่ผู้สูงอายุบางคนไม่กล้าเปิดเผยต่อสาธารณะ ซึ่งเหตุผลสำคัญของการใช้กัญชาคือการจัดการกับโรค ส่งผลให้มีการแสวงหากัญชาจากแหล่งที่มีใบอนุญาตและแหล่งที่ไม่มีใบอนุญาต วิธีการบริหารกัญชาที่หลากหลาย เช่น การสูดดมและการกิน รวมถึงผลลัพธ์ทางบวกและทางลบจากการใช้กัญชาได้ถูกรายงานไว้เช่นเดียวกัน และการขาดความรู้เกี่ยวกับกัญชาถูกรายงานว่าเป็นอุปสรรคสำคัญในการใช้กัญชาในผู้สูงอายุ

สรุปและข้อเสนอแนะ: การทบทวนวรรณกรรมอย่างเป็นระบบแบบผสมผสานนี้มีข้อเสนอแนะว่า การรับรู้ผลลัพธ์ด้านบวกของกัญชาอาจนำไปสู่การใช้กัญชาที่เพิ่มขึ้นในผู้สูงอายุ ดังนั้นบุคลากรสุขภาพควรเฝ้าระวังการใช้กัญชาในผู้สูงอายุ และควรให้ข้อมูลเกี่ยวกับกัญชา โดยเฉพาะอย่างยิ่งข้อเท็จจริงเกี่ยวกับความเสี่ยงและการยอมรับผลที่ต้องการในระยะสั้นของการใช้กัญชา การวิจัยในอนาคตควรศึกษาประสบการณ์ของการใช้กัญชาในผู้สูงอายุ เช่น ผู้ใช้รายใหม่ และผู้ที่ใช้มาเป็นเวลานาน เพื่อความเข้าใจที่มากขึ้นเกี่ยวกับรูปแบบการใช้กัญชา

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Introduction

Cannabis has been legalized for both medical and recreational purposes in some countries.[1] When cannabis has been legalized, more people are using it. This is especially true among older adults. For example, in Canada, Uruguay, and USA, the older adults showed the sharpest growth in cannabis use compared to all other age groups.[2] A survey study in the USA showed that the prevalence of cannabis use among those 65 years and older has increased from 2.4%to 75% over the past two years from 2015 to 2018.[3] Legalization of cannabis has led to increased access to the drug, with both positive and negative health impacts arising. The aging process may mitigate some of the harmful effects of cannabis use in this population.[3]

Cannabis includes three different types of plants which have different amounts of delta-9 tetrahydro-cannabinol (THC) and cannabidiol (CBD)[2]. These components can produce rapid changes in heart rate and blood pressure, increased appetite, vasodilatation and decreased respiration. Cannabis can also affects the immune and endocrine system, and its abuse is associated with lung damage and alterations in brain waves.[4] On the other hand, some evidence reports a benefit of medical cannabis use, such as control nausea and vomiting from chemotherapy, reduce spasticity in people with multiple sclerosis, help to control seizures and schizophrenia, and relief of symptoms of post-traumatic stress disorder. [2,4-6] However, there is limited evidence to support the efficacy and safety of cannabis use in older adults, as their physiology may change as they age and the data may not be appropriate for this population.

Previous studies have showed that during late adulthood, cognitive function and executive functions decline. It seems that drug use, including cannabis use, is connected with these deteriorations.[7] Older age is also associated with changes in the brain that affect brain function, and cannabis use can make these changes worse.[8] Structural changes have been reported in different locations in the brain as a result of cannabis use, including changes in gray matter density. These changes are likely linked to memory and executive functions, as well as emotional processing.[8] Moreover, there are potential negative interactions between cannabis and prescription and nonprescription medications in older adults with multiple medications.[2,9] Pharmacokinetics changes in older adults can also impact on the positive health effects, the psychoactive effects and the harmful side effects possibly experienced[3]. The pharmacokinetics of cannabinoids in older adults are different than in younger adults because their liver and kidney function is decreasing, their THC and CBD half-life elimination is longer, and they have more body fat which increases the volume of distribution of fat-soluble molecules. [3,9]

Typically, older adults suffer from more chronic conditions than younger adults.[10] Recent reports suggest that cannabis may be beneficial for relieving symptoms of chronic conditions in older adults.[11] In addition,

lifestyle changes that occur during adulthood, such as retirement or the loss of a spouse, may lead to social isolation, increased free time, or loss of work, which can lead to increased marijuana use.[12] However, older adults use cannabis either for medical or recreational purposes may not be aware of the possible changes that can happen with age. These changes could lead to harmful effects.

Although scoping review has been conducted on cannabis use in adults aged 50 and older[4], the age-related changes suggest that the effects of cannabis in older adults may be different from the effects in other adult population. Moreover, recent reviews focused exclusively on the benefits and harms of medical and nonmedical cannabis use. However, there is still a lack of knowledge regarding patterns, outcomes and experience in cannabis use from older adults' perspective. A mixed-method systematic review would maximize the findings from both quantitative and qualitative research; and those findings can improve our understanding of cannabis use in older adults, which is useful in enlightening policy and practice.

Objective

Our review aimed to synthesize the available quantitative and qualitative studies to answer the following review questions: What are the patterns and outcomes of using cannabis among older adults? and what is the experience of using cannabis among older adults?

Design

This mixed methods systematic review was conducted in accordance with the Systematic Reviews and Meta-Analyses (PRISMA) quality criteria.[13]

Eligible Criteria

Inclusion criteria in selecting papers for this review were articles which: (a) employed quantitative research to study the patterns and outcomes of using cannabis in older adults; (b) employed qualitative research to explore the experience of older adults who used cannabis; (c) included older adults aged 60 years or older; (d) were written in English or Thai; and (e) were an original peer-reviewed article and published from January 2012 to June 2022. We decided to limit our search between 2012 and 2022 to have updated information because an electronic full-text search of the articles published before 2012 confirmed that the number of articles mentioned the terms cannabis use in older adults was low.

Quasi-experimental research and randomized controlled trial were excluded due to previous systematic review was conducted in 2014 about efficacy and safety of medical cannabinoids in older adults[7] which already include these research design. Literature reviews, proceedings, book, expert opinion papers, published abstracts, and dissertations were excluded for this review because this review focused on evidence from original data and published in well-curated databases of academic disciplines.

Studies that failed to meet the minimum score of six for methodological quality using the

Joanna Briggs Institute (JBI) Critical Appraisal Checklist for analytical cross-sectional study[14] and Critical Appraisal Skills Program (CASP) for qualitative studies' quality,[15] and score of five for CASP[16] for cohort study, quality were also excluded.

Search Strategy

Three researchers searched through computer-aided searches for published papers. Preferred Reporting for Systematic Reviews and Meta-Analysis (PRISMA)[13] was followed. Pubmed, CINAHL, PsycInfo, Google Scholar, Sciences Direct, and ThaiJO databases were searched. The terms used in the search strategy were: "older adults" or "aging", "cannabis use" and "cannabis" or "marijuana", "experience", "outcome", and "pattern of use". The databases were searched separately from August 2022 to October 2022 to enhance the identification of relevant studies. Zotero was applied as a reference management software for this review.

Data Extraction

All studies were extracted into a review matrix. The first author extracted the data, which were then checked by the second and third authors.

Quality Appraisal

Quality of the quantitative studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for analytical cross-sectional study.[14] The criteria appraise the 1) inclusion criteria, 2) study subject and setting, 3) the exposure measured, 4) measurement of the condition, 5) identification of confounding factor, 6) dealing with confounding factor, 7) the outcomes omeasured, and 8) statistical analysis. In addition, the Critical Appraisal Skills Program (CASP)[16] was used to assess cohort study quality. The criteria appraise the 1) clearly focused issue, 2) an acceptable way in recruiting, 3) minimize bias of the exposure, 4) minimize bias the outcome, 5) confounding factors, 6) the follow up of subject, 7) the result of the study. The studies were included when meeting the 6-score threshold of the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for analytical cross-sectional study[14] and the 5-score threshold of the Critical Appraisal Skills Program (CASP)[16] for cohort study' quality as the cut-off for high quality lay 70% of the highest possible rating.[17]

The quality of the qualitative studies was assessed using the CASP tool.[15] The tool contains ten items including a clear statement of purpose, appropriate methodology, appropriate study design, appropriate recruitment method, appropriate data collection, researcher-participants relationships, ethical consideration, research rigor, and clear statement of the results. All studies that met the six-score threshold were included in this review.

The cut off score of each level can be divided into good or fair. Good refers to a score of ≥7 and fair refers to a score of 5-6.

Three authors independently assessed the methodological quality of the eligible studies. Discussions were engaged over any discrepancies, and if there was still no agreement, an external reviewer participated in the decision process.

Data Synthesis

The findings of qualitative and quantitative studies were organized separately. Thematic synthesis was used for this review as it can provide a comprehensive overview of the findings of heterogeneous studies.[18] The studies were read and coded to refine the themes identified. Each item of extracted data was coded independently through thematic analysis by the first and second authors and reviewed by the third author. Codes were examined and discussed to see if they were consistent and if any more were needed. The first author wrote the initial descriptive themes. Then the first and second authors collaborated to revise the themes based on the findings from all of the studies. The final themes were agreed upon by all three authors, and then the findings from each study were used to create a new set of themes that described older adults' experience of using cannabis. This process was repeated until the new themes were adequate to enlighten the initial descriptions.

Findings

Search Results

Of the 494 records that were identified through systematic searches, 385 were removed as duplicates. The first author carried out an initial screening of the titles and abstracts to determine eligibility. Then 109 were screened and 96 were removed at the title and abstract screening stage because participants were not older adults, cannot access the full text and quasi-experimental design. All authors independently reviewed full texts of potential for eligibility criteria. Disagreements were resolved through discussion. Full text was retrieved for 13 studies. Then, during the preliminary review of the full text of each study, three studies were excluded due to failure to meet the minimum summary score of six. Two studies were conducted in caregivers. Of these, eight met the inclusion criteria for this review and the process of selecting the studies is summarized in Figure 1.

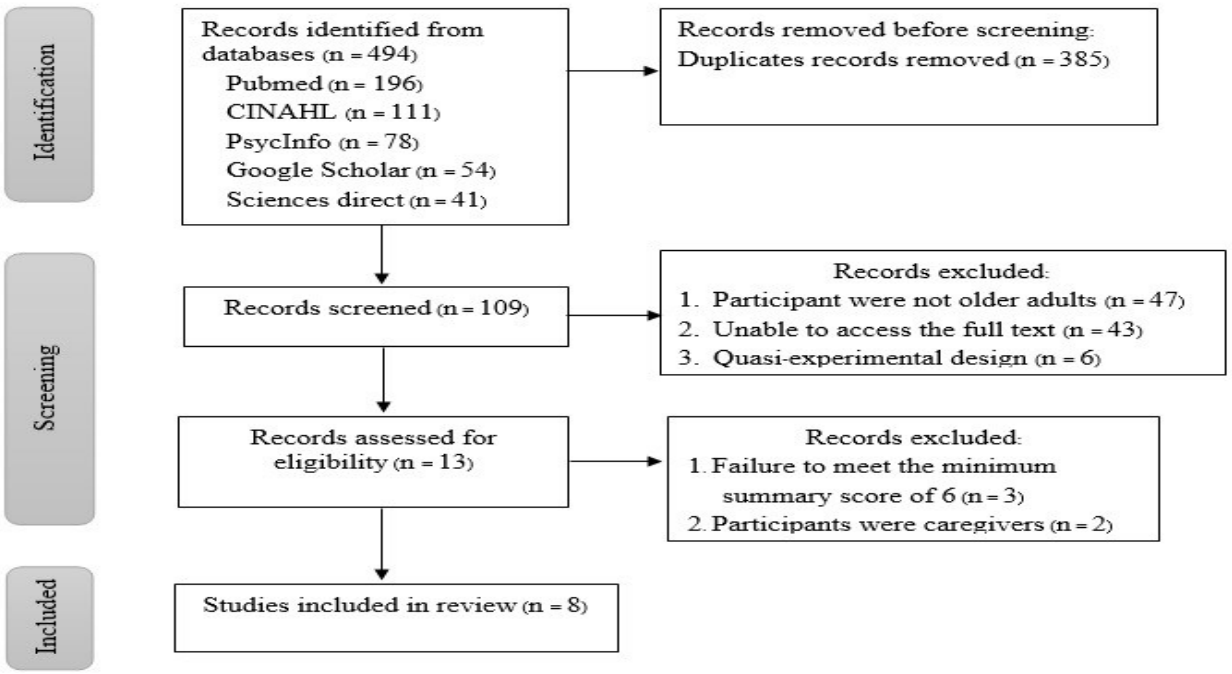

Figure 1: Flow diagram of included studies through review process

Study Characteristics

Eight articles (described in Table 1) were included in this review. Five were quantitative and three were qualitative. Five studies were conducted in the United States of America (USA), two were from Canada, and one was from Israel. All studies included male and female participants. All studies included male and female participants. Participants' ages ranged between 60 and 100 years. The sample size ranged from 10 to 9,766 older adults. Throughout the results, studies are referenced by the number that appears in Table 1. The characteristics and main findings of the studies were presented in Table 1.

Table 1: Characteristics of the included studies

Author	Aim	Study design	Sample	Main findings	Quality
Bobitt, et al.[19] USA (2020)	Examine the intersection between pain, opioids and cannabis use among older adults	Cross-sectional study	436 participants - Mean age = 72.42 years ± 7.10	When comparing drug users to non-drug users, pain was significantly associated with using cannabis and/or opioids when controlling for other covariates.	Good
Abuhasira, et al.[20] Israel (2021)	Assess the effect of cannabis on blood pressure, heart rate, and metabolic parameters in older adults with hypertension	Prospective study	26 participants - a mean age of 70.42 years ± 5.37	- At 3 months follow-up, the mean 24-hours SBP and DBP were reduced by 5.0 mmHg and 4.5 mmHg, respectively ($p < .001$ for both). - The nadir for the blood pressure and heart rate was achieved at 3 hours post-administration. - The proportion of normal dippers changed from 27.3% before treatment to 45.5% afterward.	Fair
Croker, et al.[21] USA (2021)	Assess health-related outcomes associated with medical cannabis use among older patients	Cross-sectional study	139 persons using medical cannabis - Age range = 60-88 (mean age = 68.62 years ± 6.00)	- Medical users reported cannabis dosing by means of smoke inhalation (62%), vaporizer (48%), capsules or pills (9%), edibles (29%), topical cream (27%), liquid tincture (37%), dabbing (2%), and other (6%)	Good

Table 1: (Cont.)

Author	Aim	Study design	Sample	Main findings	Quality
Kaufmann, et al.[22] USA (2022)	To understand the patterns of medical cannabis use among older adults	Cross-sectional study	2991 persons - Age range = 65-100 (mean age = 73.8 years ± 16.21)	- Severe or chronic pain was the predominant symptom for cannabis use, although older patients were more likely to use cannabis for cancer and Parkinson's disease. - Older adults were more likely to use sublingual tincture to use products with a lower THC:CBD ratio.	Good
Tumati, et al.[23] Canada (2022)	Assess medical cannabis use among older adults	Survey study	9766 older adults - Age mean = 73.2 years ± 6.8	The majority of older adults reported improvements in pain (72.7%, $z = 1482.6$, $p < .0001$, compared to worsening or no change), sleep (64.5%, $z = 549.4$, $p < .0001$), and mood (52.8%, $z = 16.4$, $p < .0001$)	Good
Bobitt, et al.[24] USA (2019)	Identify the most salient themes concerning the use of medical and recreational cannabis by older adults	Descriptive qualitative with focus group	137 participants - age ranged from 46 to 93 years (only one participant was aged 46 years), with a mean age of 72.24 years ± 6.47	5 themes: - A lack of education and research about cannabis - A lack of provider communication - Access to medical cannabis - The outcomes of cannabis use - A reluctance to discuss cannabis use	Good
Baumbusch, et al.[25] Canada (2021)	Explore older adults' experiences of using cannabis for the first-time in later life	Descriptive qualitative with semi-structured interview	12 participants - Age 71 to 85 (mean 75 years ± 4.16)	5 themes: - Reasons for usage - Routes of usage - Subjective experiences of cannabis use - Obtaining cannabis - Source of information about cannabis use	Good
Manning, et al.[26] USA (2021)	Investigate older adults' perceptions and experiences of medical cannabis use to treat and/or manage chronic conditions	Descriptive qualitative with semi-structured interview	10 participants - Age range = 64-83 years (mean 71.5 years ± 6.95)	5 themes: - Perceptions - Motivators - Treatment-seeking behavior - Using-related experiences of disease management - Stigma	Good

Methodological Quality

Two of the five quantitative studies assessed using the JBI criteria[14] were considered good quality; other two studies were considered good quality and one were considered fair using the CASP criteria.[16] Most quantitative studies discuss ethical issues and use a survey that allows the research question to be answered easily. Three qualitative studies assessed using the CASP[15] criteria were considered good quality. The qualitative studies that were reviewed generally provided a good description of the context and data collection and analysis methods. However, the information about participant characteristics and researcher-participants relationships was generally not detailed enough.

Using Cannabis among Older Adults

The results of this review included a synthesis of the experiences of older adults who used cannabis. The six main themes synthesized from the literature are shown in Table 2.

Table 2: Themes with translation of original study

Paper	Perception about cannabis use	Driving force to solve health issue	Obtaining resource	The pattern of cannabis use	Cannabis affectivity	Barrier in cannabis use
Bobitt, et al.[19]					✓	
Abuhasira, et al.[20]					✓	
Croker et, al.[21]				✓		
Kaufmann, et al.[22]		✓		✓		
Tumati, et al.[23]					✓	
Bobitt, et al.[24]	✓		✓		✓	✓
Baumbusch, et al.[25]		✓	✓	✓	✓	✓
Manning, et al.[26]	✓	✓		✓		✓

Perception about cannabis use

This theme presented the perception of cannabis use among older adults. This theme was found in two papers.[24,26] Medical cannabis use was perceived as the treatment option that was legitimate, reliable, and benefited. Participants often reported they were grateful for the medical benefits that cannabis could provide.[26] One participant said that "There's definitely an overwhelming sense of satisfaction, um, and gratefulness that this is an option. I've been using recreationally since I was 20 since college or you know, around about there and now it's just nice to be able to utilize it in a way that is consistent and safe and quality. I know what I'm getting and it mitigates my condition. It really helps me." [26 (p.36)]

However, many participants discussed about apprehension of public disclosure.[24,26] They were reluctant to disclose their use of medical cannabis to families, friends, and healthcare providers due to issue related to stigma. As one participant said "That's personal, and people are, some people are still offended by marijuana. They really are — and I think it's hard

to get that information out, because of stigma, anonymity, 'you're a little pot head!' Nobody wants that label." [24 (p.662)]

Driving force to solve health issue

This theme focused on the reasons why older people use cannabis, and what drives them to use it. This theme was featured in three papers.[22,25-26] Many participants described key details that motivated their use of medical marijuana. Basically, it was pain management. The other issues included insomnia, nausea, cancer, and lack of appetite related to chemotherapy and radiation, sleepless, and Parkinson's disease.[22,25-26] One participant said that "I needed to manage my pain and I decided I couldn't take opiates four times a day and enjoy it. My pain is hard to manage … medical cannabis is a nonopiate solution that allows me to have comfort." [26 (p.37)]

Older adults discussed about healthcare treatment-seeking behavior that differed and was modified by health problems and the effects of cannabis. They came to treatment on their own and monitored the benefit and adverse effects to their health. In addition, many participants reported conducting their own research on the risks and benefits of cannabis and trade-offs.

Obtaining resource

Older adults said that they obtained cannabis from a different source to help treat their illnesses. This theme was featured in two studies.[24-25] Some participants mentioned that in order to access medical cannabis pharmacies, it is necessary to have a medical cannabis card. One participant said that "I've got an appointment to see a doctor to get a card because I'm spending so much money at XX [retail store] that I think it's more cost effective to go and get the card." [24 (p.661)] However, some participants accessed recreational stores, both a license store and a non-license store, to obtain cannabis for medical use.

In addition, most participants got cannabis for themselves while some of them had others, such as family members, to obtain for them. They found that the main sources of information about cannabis use were friends and acquaintances, a cannabis store employee, and the media such as television and online sources.[25] As one participant said, "When I first went [to the store], someone sat down with you and explained the difference in products and type of thing, asked what you wanted, asked your situation, suggested an alternative or two for you to choose between, why one they might suggest was better than the other, and went through the whole thing about starting at a low dose and then what to do if it wasn't working." [25 (p.28)] Most of the participants talked to their family doctor before trying cannabis, and they started searching for their own sources. Then, they decided on the dose and method to use.

The pattern of cannabis use

Older adults described the routes of cannabis use. This theme was reported in four papers.[21-22,25-26] Most participants ingested cannabis such as oil and tincture drops. Other popular routes of usage included topical

creams, oil capsule, inhaling, and edibles.[25-26] Many participants felt more control over their dosage when taking cannabis pills and oils/tinctures. Inhaling cannabis was used for recreational purposes, but many participants had negative feelings or experiences with this method. As one participant said, "I didn't want to smoke anything. And I thought that the oil or tablets would be products that I would feel most comfortable with. Partly because I felt that eating edibles would be less – I'd be less able to know how much I was getting or how much I should take. Whereas the tablet or the drops were I felt more controllable for me." [25 (p.27)] However, another study found that medical users were more likely to use smoke inhalation (62%) versus other consumption methods such as vaporizer (48%), liquid tincture (37%), edibles (29%), topical cream (27%), capsules or pills (9%).[21] In another study, vaporization cartridge was the most common way of cannabis delivery (41.2%), followed by sublingual tincture (36.5%).[22]

There was a difference in the frequency of cannabis use. Some participants used cannabis daily or weekly,[25] and some used it at 1-4 or 5-7 times per week.[21] Moreover, older adults started cannabis treatment with a lower THC:CBD ratio, compared with younger age groups.[22]

Cannabis affectivity

This theme focused on the potential positive and negative consequences of cannabis use, highlighting the importance of weighing both sides after using Medical cannabis. This theme was found in five papers.[19-20,23-25] After using Cannabis, most participants reported positive effects on a variety of medical symptoms and pain related to illness and injuries.[19,23-24] As one participant said, "I have seen in my own situation, I live with a 9-10 pain constantly because of what I'm going through and I can take a tincture of THC during the day, and get the gripping pain relieved." [24 (p.661-2)] Some participants discussed improvement in mood and sleep.[23,25] As older woman said that "I really sleep much better. Before [cannabis] I'd go to bed, because it's when you're lying in bed and you've got all this pain – and I mean, at one point, I was taking, like, six to eight Tylenol, extra-strength Tylenol – a day." [25 (p.27)] In addition, among older adults with hypertension, 3 months of cannabis treatment reduced 24-hour systolic and diastolic blood pressure values, with a minimum 3 hours after cannabis administration.[20]

However, negative outcomes of cannabis use were also mentioned. Reports of adverse effects among older adults include dry mouth, drowsiness, grogginess, dizziness, disturbing/vivid dreams, and feeling uncomfortable or sick.[23,25] These side effects can be a serious problem, and they can be exacerbated by age-related changes in the body. One older woman commented, "They've genetically played around with that plant that they've got it so strong that a young kid without experience or good guidance it could ruin their life for a long time." [24 (p.662)]

Barrier in cannabis use

Although older adults experienced positive outcomes of cannabis use, some of them reported barriers in using cannabis. This theme was featured in three papers.[24-26] Participants discussed about the limited education and research available on cannabis use for older adults including the good and bad outcomes of cannabis use, ways to safely consume cannabis, and individual cannabis dosage.[24] One participant said that "That's what's needed. Is a big study with 10,000 people or something, what's your ailment, what do you use, what brand, how often, dosage."[24 (p.660)] Moreover, some participants mentioned frustration with the lack of educational support regarding product use, such as vaping devices.[26]

Importantly, little guidance or information was available to determine the best dose of cannabis. Trial and error was used to determine the best dose. One participant said, "any information I got, I got on my own. I find that you don't get much information from health professionals anymore."[25 (p.28)] Trying to find out the information was the main trouble thing.

Most participants preferred to communicate with their healthcare provider about cannabis, but they reported a lack of openness from providers that hindered their communication. One participant said that "I think they (healthcare providers) should be a lot more open to discussing it with their patients."[24 (p.660)] In addition, they expressed about the lack of knowledge among providers regarding cannabis use. As one participant said, "I think it is good doctors are making themselves aware of it, I think the medical community, in all states, especially where it's been legalized, they need to make themselves more knowledgeable and more aware."[24 (p.661)]

Discussion

This review synthesized the data from the quantitative and qualitative evidence regarding the experience of cannabis use among older adults that was collected in three countries. A vital insight from this study was that older adults have positive perceptions of medical cannabis use. This could explain why cannabis use is more common among older adults with medical conditions than those without medical conditions. Among older adults, perceived risk associated with cannabis use is decreasing.[27]

With the changing of cannabis legalization, the perceptions and use of its are changing. Cannabis use among older adults continues to increase and there is a decrease in perceptions of harm.[28] However, both medical and recreational cannabis is legal in many countries, some older adults would still feel unwilling to disclose their cannabis use to others, particularly for medical purpose. This is because of the issues with stigma associated with using medical cannabis are concerned. This finding is consistent with another study that has reported experience of stigma related to cannabis use as an issue.[29]

Cannabis use among older adults is influenced by motivations for seeking out cannabis especially for pain control. This result is similar to another study that reports pain as the main reasons for cannabis use.[30] Pain control is common comparison point in discussions of cannabis use. In this review, most older adults were satisfied with the treatment and believed it was beneficial to their pain control and general health. However, the treatment is not suitable for all patients, and its use should be considered.

This review provides new insight into older adults' interaction with healthcare providers. Despite using cannabis for medical purposes, older adults described barriers regarding lack of knowledge and information and physician supports. Older adults expected that they would be able to consult with healthcare providers who knew about their medical histories. However, from the synthesis, older adults reported reluctance to discuss medical cannabis with providers due to fear of negative reactions. Older adults mostly initiated conversations with their physicians about cannabis use, but none of them were able to provide dosage guidance. This finding is in line with other studies that have also reported that disclosure of cannabis use and communication with providers are problems for some patients.[29,31]

The lack of information and guidance on cannabis use can be challenging for older adults, who are hesitant to discuss cannabis use with healthcare providers. This leaves older adults without the information they need to make informed decisions about using cannabis. The reluctance to discuss cannabis use leads to a situation in which older adults might only be able to access information from non-providers or rely on word-of-mouth experiences from acquaintances or friends. Like our results, a recent study showed that older adults and caregivers relied on cannabis store staff, friends, and the media for information because there was a lack of providing guidance and recommendations.[32]

Strengths and limitations

This synthesis will provide recommendations for future clinical practice and cannabis policy for older adults. A limitation of this review is that only articles in English and Thai were searched, which may have reduced the number of potentially relevant studies. Additionally, sources of information such as conference proceedings, gray literature, theses and abstracts were not considered, meaning some related studies may have been missed.

Conclusion and Recommendations

Older adults have a positive perception of cannabis use due to satisfaction with the outcomes. They focused on medical cannabis use, specifically for pain management. The almost all obtain information about cannabis use from other sources such as friends and the media. Thus, they voiced a strong request for educational opportunities and medical guidance about cannabis use, as it is being used increasingly without a prescription. This suggests that this use should be monitored by healthcare providers, given specific health issues related to cannabis and aging.

Implications for practice

Healthcare providers should increase interaction with older adults who inquire about the use of medical cannabis. Information about dosing, products, benefits, and adverse effects related to their current condition should be provided to older adults. In addition, geriatric assessments should include cannabis screening to ensure safe and appropriate use of medical cannabis settlements for all older adults. Physicians and nurses should ask and initiate discussion about cannabis use, which would help diminish the amount of reluctance to disclose their use of cannabis.

Implications for further study

Future studies should explore the experience of cannabis use among different groups of older adults, including new users and long-time users, to better understand the pattern of usage. More detailed research about the influence of gender and social settings on cannabis use in later life is needed to explore.

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