Use of Pain Medication and Cannabis by Age Groups Before and After Legalization of Cannabis: An Investigation of Trends from 2017 to 2019 in a Representative Sample of Canada

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Introduction

• Recent nation-wide statistics have shown rising prevalence of pain-related health complaints, across age groups.
• Ongoing public health concerns regarding prescription opioid misuse have encouraged exploration of alternative pain management options, including cannabis.1
• Canada’s 2018 cannabis legalization offers a rare glimpse into shifting opioid pain medication use patterns as a possibly linked consequence of change to cannabis legal status.
• Aim: To investigate changes in the rate of opioid pain medication use before and after cannabis legalization in individuals reporting ≥1x lifetime use of opioid medication, and to assess differences by age group.

Methods

• 2017 and 2019 Canadian Alcohol and Drugs Survey respondents ≥25 years old reporting ever using prescription opioid medication, stratified by age (25-44, 45-64, 65+ years).
• Statistics: Chi-Square and t-tests for demographics. Chi-square and Spearman’s rho for key outcomes. α=.05

Results

Table 1. Demographics

<table>
<thead>
<tr>
<th>Age 25-44</th>
<th>Age 45-64</th>
<th>Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%F)</td>
<td>827 (60.7)</td>
<td>1,306 (60.4)</td>
</tr>
<tr>
<td>Urban Community (%)</td>
<td>25.2</td>
<td>19.8</td>
</tr>
<tr>
<td>Mean Health (SD)</td>
<td>2.21 (0.93)</td>
<td>2.34 (0.87)</td>
</tr>
<tr>
<td>Mean Mental Health (SD)</td>
<td>2.11 (0.97)</td>
<td>2.34 (1.00)</td>
</tr>
</tbody>
</table>

KEY FINDINGS

• Increased past 12-month cannabis use ($X^2 = 6.0-45.9$, all $p$’s<.05).
• Among cannabis users: increased reported medical use ($X^2 = 77.6-283.9$, all $p$’s<.001).
• Increased past 12-month prescription opioid use in age 45-64 ($X^2=18.2$, $p$<.001). No other significant differences in opioid use by age group.
• Small associations between past 12-month cannabis (general and medical) and opioid use in all ages ($r=.43-.254$, all $p$’s<.05)

Conclusions

• Cannabis and opioid use increased over time, suggesting cannabis legalization may not reduce opioid use.
• Increased medical cannabis and opioid use is congruent with increasing prevalence of pain-related health complaints, suggesting increasing need for pain management.2
• Direct relationships between substance use with legalization of cannabis and pain cannot be elucidated due to the nature of the dataset.
• Given study’s cross-sectional design, etiology of observed changes in opioid and cannabis use across time cannot be determined.
• Future longitudinal investigations are needed, such as in countries where cannabis legalization is being considered.

REFERENCES


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