HRP61

Cannabis Edibles

Using a discrete choice experiment to explore patterns of purchase preferences among Canadians

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Background

- In October 2019 cannabis edibles were legalized for sale in Canada.
- The intend was to protect public health and safety by regulating contents.
- Edibles in Canada must contain no more than 10mg of tetrahydrocannabinol (THC) per package to prevent accidental ingestion or over consumption.
- This study sought to measure consumer preferences for attributes of cannabis edibles to inform cannabis policy.

Methods

- We explored relative importance and trade offs consumers make for attributes of cannabis edibles using a discrete choice experiment.
- Attributes included: type of edible, price, THC content, cannabis taste, package information, product consistency, product recommendations and Health Canada regulation.
- Participants lived in Canada, were 19 years of age or older, and purchased a cannabis edible in the last 12 months.
- A multinomial logit (MNL) model was used for the base model, and latent class analysis to assess preference sub-groups.

Results

- Among the 684 participants (Table 1), the MNL model showed that potency carried the most relevance followed by edible type.
- A two-group latent class model revealed two very distinct preference patterns (Figure 2).
- Preferences for group 1 (~65% of sample) were driven primarily by edible type, followed by taste and package information, while price had little relevance.
- Preferences for group 2 (~35% of sample), choices were driven almost entirely by the THC potency, followed by price. This group was willing to pay $42 more for a package with 100 mg THC compared to 5 mg.
- Individuals in Group 2 were significantly more likely to: 1) purchase more frequently; 2) consume more regularly/greater amounts; 3) consume for recreational purposes; and 4) have consumed cannabis prior to legalization.

Figure 1. Sample Choice Task

You are purchasing an edible cannabis product with THC. While of the following 2 items would you choose?

While some options may not seem possible, assume both are available as presented.

Attribute	Option A	Option B
Type of Edible	A Candy (e.g., chocolate bar, gummy, mint)	A Baked Product (e.g., brownie, cookie, granola bar)
Price for Package	$5	$15
Amount of TCH per Package	10 mg	100 mg
Cannabis Taste	Mild cannabis taste	No cannabis taste
Package Information	Producer, Amount of THC and/or CBD in milligrams, nutritional information, strain, terpenes, growth and supply Chain Info	No info on the package
Consistency of THC across servings	Exactly the same	Unknown
Product Recommendation	Recommended by family or friend	Recommended by person selling
Regulated by Health Canada	No	Yes
Choice	[ ]	[ ]

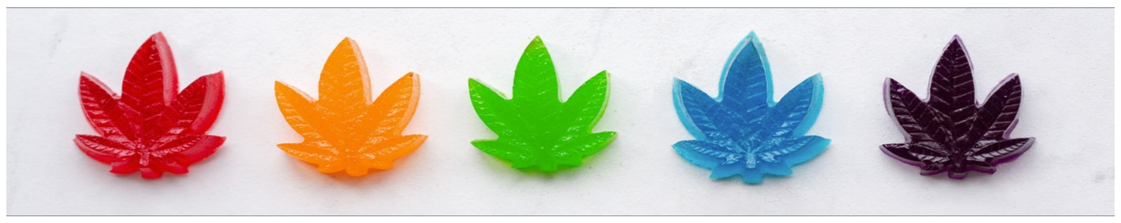
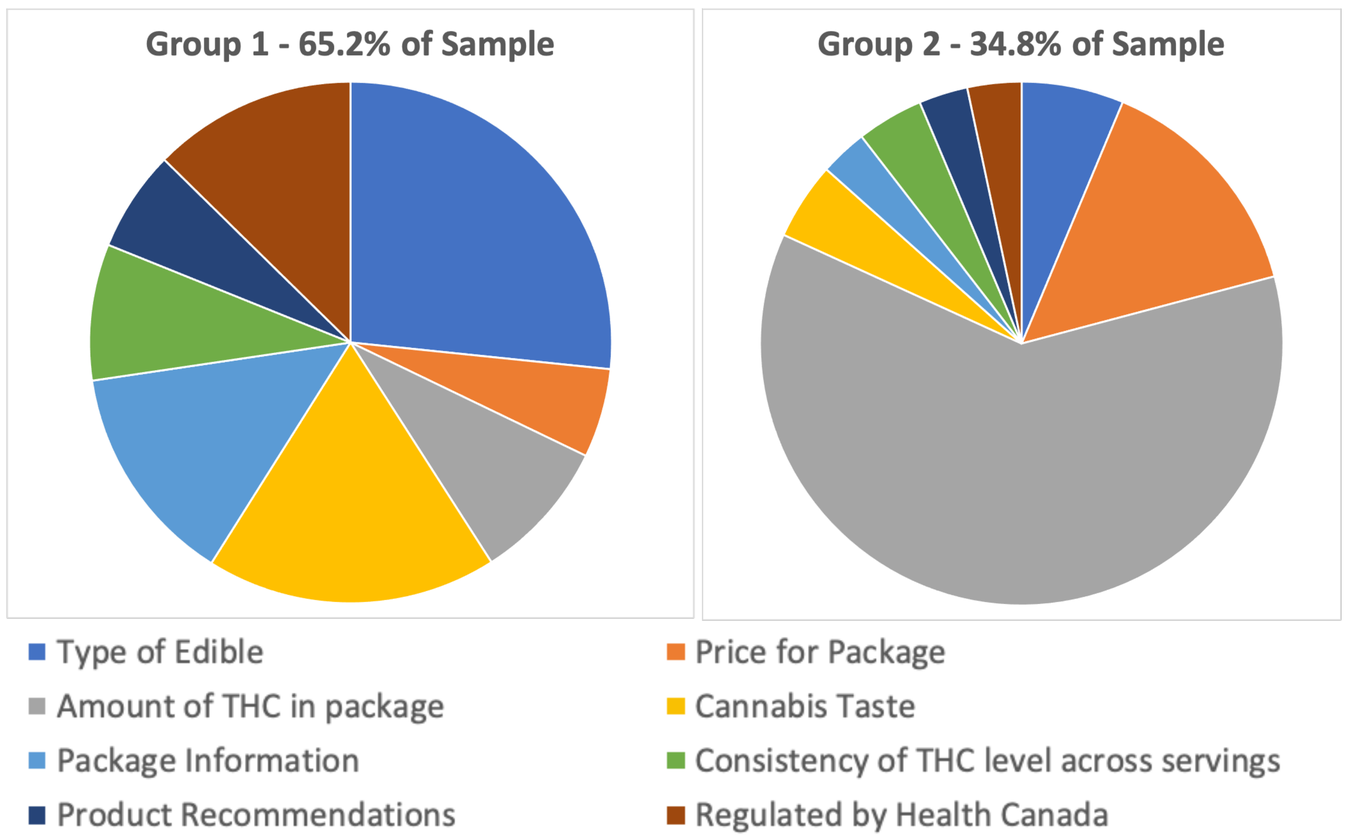


Table 1. Sample Characteristics

Characteristic		Number (%) N=684
Sex	Female	333 (48.7)
	Male	344 (50.3)
	Prefer not to say	7 (1.0)
Gender	Woman	322 (47.1)
	Man	343 (50.1)
	Gender Diverse	8 (1.2)
	Other	6 (0.9)
	Prefer not to say	5 (0.7)
Age	19-29	146 (21.3)
	30-39	238 (34.8)
	40-49	95 (13.9)
	50-59	94 (13.7)
	60 or above	111 (16.2)
Education	Did not complete high school	7 (1.0)
	High school diploma	49 (7.2)
	Some post-secondary	102 (14.9)
	College/trade school	221 (32.3)
	Undergraduate degree	197 (28.8)
	Graduate degree	108 (15.8)
Income	<$25,000	53 (7.7)
	$25,000 to $49,999	118 (17.3)
	$50,000 to $74,000	122 (17.8)
	$75,000 to $99,999	108 (15.8)
	$100,000 or more	228 (33.3)
	Prefer not to say	55 (8.0)

Figure 2. Relative Attribute Importance from Latent Class Model



Discussion

- Group 1 of the latent class model appeared to have their needs met through the regulated cannabis market as they were more concerned with the edible type and obtaining a regulated product over THC content or cost.
- The decisions of group 2 were overwhelmingly driven by THC content, and to a lesser degree cost. While only making up 34.8% of the sample, they represent a larger portion of the edible market as they purchased and consumed more compared to group 1.
- If the needs of group 2 are not met through regulated channels then the alternatives they might pursue include: 1) purchasing unregulated edibles; or 2) consuming other types with greater health risks (e.g., inhaled dried flower or vape oil)
- Unregulated sources of cannabis edibles often come in attractive packaging, not contain safety features and can have very high doses of THC per unit. This can lead to greater risk of accidental consumption.
- A re-evaluation of the THC limitation for cannabis edibles and the impact it has on overall public health and safety is warranted.

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