NZ COMMUNITY PHARMACISTS’ KNOWLEDGE AND PERSPECTIVES ON E-CIGARETTES

Pharmacy 410 Group 06

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INTRODUCTION

ELECTRONIC CIGARETTES:
Battery operated devices that generate vapour from an atomiser via inhalation from the cartridge
- Commonly used by smokers as potential smoking cessation aid or simply as an alternative
- Ingredients in e-liquid vary

IN NEW ZEALAND
- Some pharmacies stock and supply e-cigarettes
- Currently no studies have been conducted looking at pharmacy supply in NZ
- Issues with the lack of evidence regarding safety and efficacy globally
AIM: To explore NZ community pharmacists’ knowledge and perceptions of electronic cigarettes

OBJECTIVES:

1. Design an online questionnaire and enter on Qualtrics to identify the extent of knowledge and attitudes community pharmacists have towards e-cigarettes

2. To obtain ethics approval for the study and to distribute the online questionnaire to at least 300 randomly selected community pharmacists in NZ following telephone invitation

3. To analyse the data collected to make findings with a view to publication
METHOD

- Questionnaire developed in Qualtrics and Ethics Approval obtained
- Phone calls made to recruit at least 300 community pharmacists in NZ
- Distributed online questionnaire via email
- Data collection, cleaning and analysis
DEMOGRAPHICS

Total of 414 calls
303 expressed interest
182 responses

44% Response Rate
n = 182

Years of Practice

- 1-5 years: 38.5%
- 6-10 years: 19.2%
- >10 years: 31.9%
- n/a: 10.4%

45.1% Male
53.8% Female
SALES

Of these, 68.8% (n=11) stock different flavoured solutions

Nicotine containing products were reported to be sold in 4 pharmacies

ADVERSE EFFECTS

Never been approached regarding e-cig adverse effects 87.4% (n=159)

- Dry mouth 43% (n=13)
- Sore throat 29% (n=6)
- Cough 29% (n=6)
- Headache 24% (n=5)
- Other 19% (n=4)
All pharmacists who completed the survey had heard of e-cigarettes **100%**

### Ingredients
- **Full Knowledge** (9.5%)
- **Partial Knowledge** (53.6%)
- **No Knowledge** (31.3%)
- **Incorrect Knowledge** (5.6%)

### Regulations
- **Full Knowledge** (3.4%)
- **Partial Knowledge** (31.4%)
- **No knowledge** (54.9%)
Participants were asked to rate a series of statements on a Likert Scale.

Options given were:
- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

**ATTITUDES AND PERCEPTIONS**

**AGREE or STRONGLY AGREE**
- E-liquid may be toxic
- E-cigs are safer than tobacco cigarettes
- Design of e-cigs encourages smokers to give up smoking
- Encourages smoking in non smokers
- Flavorings encourages e-cigs use in non smokers

**NEUTRAL**
- E-cigs are safe to inhale
- Manufacturing of e-cigs is unreliable
- Nicotine delivery via e-cigs is more effective than NRT
- E-cigs should be recommended for smoking cessation

**DISAGREE or STRONGLY DISAGREE**
- Do not cause any adverse effects
PERCEPTIONS

ROLE of E-CIG and its EFFICACY

<table>
<thead>
<tr>
<th>Method</th>
<th>Effective</th>
<th>Ineffective</th>
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</thead>
<tbody>
<tr>
<td>Classic NRT (patches, gums etc)</td>
<td>96%</td>
<td>4%</td>
</tr>
<tr>
<td>Newer NRT (inhalator, quickmist)</td>
<td>94.7%</td>
<td>5.4%</td>
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<tr>
<td>Electronic Cigarettes</td>
<td>81.1%</td>
<td>18.9%</td>
</tr>
<tr>
<td>GP and Pharmacist counselling</td>
<td>92.9%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Family and support groups</td>
<td>96.5%</td>
<td>3.5%</td>
</tr>
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NRT Substitute (32.1%)
Other (3.6%)
Smoking Cessation Aid (53.6%)
Harm Reduction Option (65.5%)
Cigarette Substitute (64.3%)
Nicotine is a scheduled substance under the Medicines Act. It is illegal to sell e-cigarette products while making a therapeutic claim unless approved for that purpose by Medsafe.

Aspect of e-cigarette regulation that pharmacists believe should be more tightly controlled:

- None: 1.8%
- Safety: 16.8%
- Accessibility: 6.6%
- Eligibility: 2.4%
- Nicotine: 7.8%
- Excipients: 15.0%
- Design: 1.2%
- All of the above: 48.5%

Potential benefits that may arise from future regulations:

- Reassurance of safety for e-cig users: 4
- Establishment of e-cig as NRT for smoking cessation: 4
- Increase the sale of e-cig from pharmacies: 3
TRAINING

58.4% Not Ready to Sell E-cig

Dosage instructions 10
Counselling 10
Safety Information 10

Implementation of e-cigarettes into smoking cessation: 9
Dealing with adverse effects: 9

Online tutorials: 85% (n=139)
Information packs: 74% (n=121)
CPD workshops: 54% (n=89)
Video tutorials: 40% (n=66)
Other: 6% (n=11)
CONCLUSION

- Sources of information are unreliable and potentially biased; reliable studies need to be conducted

- Knowledge is not at the level it should be for healthcare professionals

- E-cigarettes are viewed as the lesser of two evils

- Community pharmacists believe there are better options for smoking cessation

- Safety is the main concern with regard to regulation
THANK YOU