ROLE OF A NEW GENERATION E-CIGARETTE ON SMOKING DISPLACEMENT IN SMOKERS WITH SCHIZOPHRENIA SPECTRUM DISORDERS (SSD): A SINGLE ARM PILOT STUDY

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Globally, people with schizophrenia smoke disproportionately more than the general population, have a more difficult time quitting, and subsequently carry the burden of cigarette smoking-related morbidity and mortality. Currently, marketed smoking cessation products demonstrate limited efficacy among smokers with schizophrenia as compared to the general population.

**BACKGROUND**

SSD show higher prevalence/frequency of smoking.

Higher nicotine dependence and harmful effects compared with the general population.

They show difficulty in quitting because they are heavier smokers and experience more severe nicotine withdrawal symptoms.

They die 25 years earlier than those without mental illness.
Switching to a high nicotine level e-cig

With nicotine peak levels that equate traditional cigarettes, should satisfy smokers’ cravings

Avoid cigarette withdrawal symptoms

May be helpful for smoking cessation/reduction and THR in smokers with SSD
A typical day at SSD center
Smoker’s Fingers
Smoker’s Clothing
The waiting room at the SSD Center
Curtain of waiting room
I have a DREAM

IMPROVE THEIR QoL
METHODS
OBJECTIVES

To observe:
1. Smoking cessation
2. Smoking Reduction
3. Acceptability

Invited to use JUUL ecig with 5% nicotine pods, tobacco aroma, 12 weeks
STUDY PRODUCTS
STUDY DESIGN

This was a 3-month single arm pilot study

Included 4, F2F onsite, study visits
at weeks 4, week 8, and week 12

Assessments included

• Blood Pressure (BP), Heart Rate (HR),
  • Body weight,
• exhaled Carbon Monoxide (eCO),
• E-cigarette use (pods used daily),
  • FTCD,
  • SAPS
  • SANS,
  • M-CEQ.
40 Caucasian smokers (≥20 CPD cig die) in out-patient treatment for SSD

Not motivated to quit smoking
RESULTS...
## SOCIO-DEMOGRAPHIC CHARACTERISTICS AT BASELINE

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
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<tbody>
<tr>
<td>26 (65)</td>
<td>14 (35)</td>
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<table>
<thead>
<tr>
<th>Age: mean (sd)</th>
<th>Age range</th>
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<tbody>
<tr>
<td>48.3 (12.1)</td>
<td>18-24: 1 (2.5)</td>
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<table>
<thead>
<tr>
<th>Education: n (%)</th>
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<tbody>
<tr>
<td>Middle school: 22 (55)</td>
</tr>
<tr>
<td>High school: 17 (42.5)</td>
</tr>
<tr>
<td>University: 1 (2.5)</td>
</tr>
</tbody>
</table>

## SMOKING HISTORY

<table>
<thead>
<tr>
<th>CPD: mean (sd)</th>
<th>Age of onset of smoking: mean (sd)</th>
<th>Length of time smoking: mean (sd)</th>
<th>Pack/years: mean (sd)</th>
<th>Smokers who have carried out previous cessation attempts: n (%)</th>
<th>Smokers who had previously used an e cigarette – either regularly or tried: n (%)</th>
<th>FTCD: mean (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 (9)</td>
<td>15.4 (1.2)</td>
<td>33.5 (12.2)</td>
<td>45.4 (23.9)</td>
<td>14 (35%)</td>
<td>12 (30%)</td>
<td>8.3 (1.8)</td>
</tr>
</tbody>
</table>

## MENTAL HEALTH HISTORY AND STATUS

<table>
<thead>
<tr>
<th>Age onset of schizophrenia spectrum disorders: mean (sd)</th>
<th>SAPS at Baseline: mean (sd)</th>
<th>SANS at Baseline: mean (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.9 (2.8)</td>
<td>42.9 (23.7)</td>
<td>43.3 (21.7)</td>
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</table>
PRODUCT USE

All participants that completed the full schedule of visits (n = 37) reported using the e-cigarette each day over the 12 weeks, with a median (IQR) amount of e-cigarettes’ pods of 1 per day (1, 1) over the study duration.
CHANGES IN SMOKING BEHAVIOUR AT WEEK 12

- Quitters
- Reducers
- Lost to follow up
ACCEPTABILITY

Absence of negative impact on their mental health following e-cig use (SAPS/SANS)

Absence of negative impact on their physical health. Participants showed improvements on blood pressure and heart rate without weight gain and adverse events.

High level of product satisfaction assessed by M-CEQ
In 40 smokers with SSD not motivated to quit, the use of JUUL e-cigarettes:
- determined complete smoking cessation (40%),
- determined smoking reduction (52%),
- determined improvements in Blood Pressure (BP), Heart Rate (HR) and exhaled carbon monoxide in (eCO)
- without causing significant side effects and negative changes in Symptoms of Schizophrenia
THEIR HEALTH IS IN THEIR HANDS
Thank you for listening

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