ISSN: 2754-4761

Journal of Pulmonology Research & Reports

SCIENTIFIC Research and Community

Review Article

Open Access

The Attitudes of South African Respiratory Physicians towards the Use of Electronic Cigarettes as Smoking Cessation Adjuncts

Manqola LL [1] and Matlawene John Mpe[2*]

[1]Department of Internal medicine, Division of Pulmonology, Sefako Makgatho Health Sciences University. Molotlegi Street, Ga-Rankuwa, Pretoria,Gauteng, South Africa

[2]Department of Critical Care Medicine, Sefako Makgatho Health Sciences University, P O Box 38, Medunsa, Pretoria, 0204, South Africa

ABSTRACT

Background: Tobacco use remains a substantial health hazard. Promotion of smoking cessation is an important healthcare intervention. Current guidelines for smoking cessation are only modestly successful. It is unclear if electronic cigarettes are effective smoking cessation adjuncts.

Aim: The purpose of the study was to determine the attitudes of respiratory physicians in South Africa towards the use of e-cigarettes as smoking cessation adjuncts.

Setting: Online survey of the attitudes of South African registered respiratory physicians towards e-cigarettes.

Methods: The study was cross-sectional in design and consisted of a questionnaire-based online survey sent by electronic mail and completed by respiratory physicians registered with the Health Professions Council of South Africa (HPCSA), who were willing to participate.

Results: Fifty-two (63.4%) responses were received. Sixty-seven percent of the participants felt that e-cigarettes were not effective smoking cessation adjuncts. Almost 79% of the respondents were of the opinion that e-cigarettes had less harmful effects on smokers compared to conventional cigarettes. Sixty-two percent of the respondents felt that e-cigarettes could be a gateway to other tobacco product use. More than 80% were in support of strict regulation of e-cigarettes.

Conclusion: The majority of the respondents did not believe in the effectiveness of e-cigarettes as smoking cessation adjuncts, and would be happy with strict laws regulating the use of these products being enacted.

***Corresponding author**

Matlawene John Mpe, Department of Critical Care Medicine, Sefako Makgatho Health Sciences University, P O Box 38, Medunsa, Pretoria, 0204, South Africa.

Received: August 13, 2024; **Accepted:** August 19, 2024, **Published:** August 31, 2024

Keywords: Electronic Cigarettes, Smoking Cessation, Respiratory Physicians, Attitudes Advertising, Legislation

Introduction

Tobacco use is a substantial health hazard. It is estimated that 6 million deaths occur annually worldwide as a result of tobacco use [1]. Many forms of cancer, cardiovascular and respiratory diseases are linked to tobacco use. The leading cause of premature deaths in the European Union is the smoking of tobacco; accounting for nearly 700 000 deaths per year [2]. Despite this, it was estimated by the World Health Organization (WHO) that, in 2015, 22.7% of the world's population (approximately 1.1 billion individuals) above the age of 15 years consumed tobacco [3].

Smoke cessation should therefore be seen as one of the most important healthcare interventions that can be undertaken.

E -cigarettes are thought to form part of the armamentarium available for stemming the tide of regular tobacco use. Like traditional cigarettes, e-cigarettes create an inhaled aerosol of ultrafine particles that rapidly delivers nicotine to the brain [4].

Although the thermal degradation of e-cigarettes has been shown to generate potentially toxic carbonyls, human carcinogens, and metals, e-cigarettes are believed to generally contain fewer toxic chemicals and in lower concentrations than conventional cigarette smoke [5-7].

Current guidelines for smoking cessation recommend that smokers who want to quit receive cognitive-behavioral counseling, nicotine replacement therapy, and self-help materials [8,9]. In general, such approaches have been modestly successful in helping smokers achieve long-term abstinence.

There is uncertainty about the effectiveness of e-cigarettes in increasing smoking cessation rates [10-12].

There is also lack of international consensus on the public health

role of e-cigarettes, and their use as a tool for smoking cessation is controversial. Two-thirds (67%) of surveyed physicians indicated that e-cigarettes were a helpful aid in smoking cessation, and 35% of surveyed physicians recommended them to their patients [13,14].

A survey of Chinese physicians about e-cigarettes found that, despite the fact that a substantial proportion of the respondents were not aware of the health risks of e-cigarettes, they were supportive of using e-cigarettes to quit smoking [15]. A study of doctors and tobacco counselors in the Netherlands found that, although the majority saw vaping as less risky compared to tobacco smoking, they did not see it as an effective cessation aid, and did not strongly recommend it to their patients [16]. In a recent survey in Egypt, healthcare providers exhibited an elevated awareness of e-cigarettes and a more negative attitude towards them than the general population [17].

A survey of regulatory approaches in different countries reported that 26 countries had banned all use of e-cigarettes and 21 countries has imposed restrictions on their use [18]. Proponents of e-cigarette use, such as Public Health England and Public Health Scotland, have suggested that vaping may have a role to play as a smoking cessation adjunct, similar to the nicotine replacement therapies (NRTs), varenicline and bupropion. Public health bodies such as the World Health Organization (WHO) have been more cautious.

Aims and Objectives of the Study

Aim

To determine the attitudes of respiratory physicians in South Africa towards e-cigarettes in general, and as they relate to their use as smoking cessation adjuncts.

Objectives

- To assess the ease of access to e-cigarettes and the types of smoking cessation adjuncts available.
- To determine the frequency of prescription of e-cigarettes by practitioners.
- To assess belief of practitioners in the effectiveness of e-cigarettes to facilitate smoking cessation.
- To determine the views of practitioners on the promotion and regulation of e-cigarettes.

Methodology

Study Setting

The study was conducted from the Department of Medicine of the Sefako Makgatho Health Sciences University.

Study Design

The study was cross-sectional and descriptive. The study report is an analysis of quantitative data obtained from responses to an online survey. The target population of respiratory physicians was chosen because the relevance of the research question to their specialty.

Study Procedure

The study questionnaire (Appendix A) was sent by email to all registered respiratory physicians in South Africa, inviting them to participate in an online survey. The questionnaire was accompanied by an explanatory note (Appendix B). The questionnaire was adapted from the relevant literature. The HPCSA register was used as a reference. Reminders were sent out more than twice to encourage greater participation.

The Following Data Were Collected

Demographic data, the smoking cessation adjuncts available, the options available, the ease with which they could discuss smoking cessation with their patients, experience with the use of e-cigarettes, and general attitudes towards e-cigarettes, specifically as smoking cessation adjuncts.

Study Population and Sample Size

The study questionnaire was sent out to all respiratory physicians listed on the HPCSA registry at the time of the study. The respiratory physicians who returned completed questionnaires constituted the sample size.

Data Analysis

Descriptive statistics were used to characterize participants. Continuous variables were summed up using the range, means, and standard deviation. Non-continuous variables were summarized using percentages. The student's t-test was used to compare means, while the chi-square test was used to compare proportions. The level of significance was set at a p-value <0.05.

Ethical Considerations

The questionnaire was completed without identifiers and the responses were anonymous so that the views and opinions of the participants could not be traced to individuals. Permission to conduct the study was obtained from the Research and Ethics Committee of Sefako Makgatho Health Sciences University prior to commencement (reference number: SMUREC/M/312/2021:PG). Participation in the survey was voluntary and informed consent was assumed as having been granted on the basis of the response from participants.

Results

Study questionnaires were sent to all registered pulmonologists in South Africa (n = 82 at the time the study was undertaken), accompanied by an information leaflet detailing the purpose of this study. The response rate was just over 63% (n = 52).

A descriptive analysis of the demographics of the respondents included length of clinical experience as a pulmonologist, characteristics of their practice, smoking status of the physician, and access to and types of smoking cessation adjuncts available (see Table 1).

Table 1: Details of the Pulmonologists who Participated in the Study

Details of the pulmonologists	Number of respondents	%
Clinical experience as a pulmonologist:		
< 10 years	33	63.5
≥ 10 years	19	36.5
Facility where employed:		
Private	17	32.7
Public	17	32.7
Both	14	26.9
Retired	4	7.7
Smoking history:		
Current smoker	3	5.8
Ex-smoker	15	28.8
Never a smoker	34	65.4
Access to smoke cessation adjuncts (n = 50):		
Bupropion	2	4.0
Bupropion plus psychotherapy	1	2.0
Nicotine replacement	38	76.0
Psychotherapy alone	9	18.0

The pulmonologists were asked whether they had ever prescribed e-cigarettes to their patients. Only 14 (26.9%) of the pulmonologists had ever prescribed e-cigarettes to patients.

The questionnaire also sought to find out how many of the respiratory physicians were confident to answer patients' questions about e-cigarettes. Of the 52 respondents, 50 (96.2%) were comfortable addressing patient concerns about e-cigarettes.

Regarding the effectiveness of these products in assisting with smoking cessation, more than two-thirds (67.3%) of the respiratory physicians were not convinced that e-cigarettes were helpful in achieving this goal.

Table 2 sums up the opinions of the pulmonologists on various aspects of the general safety of e-cigarettes, the cancer risk and risk of smoking uptake for those who have never smoked.

Table 2: Evaluation of Pulmonologists' Opinion on Matters Relating to e-Cigarettes from the Point of view of Safety, Risk of Cancer and Smoking Cessation Adjunct

Points raised in the questionnaire	Agree No & [%]	Disagree No & [%]
a. E-cigarettes are safer than regular cigarettes	30 [78.8]	22 [21.2]
b. E-cigarettes contain chemicals that may cause long-term health effects.	51 [98.1]	1 [1.9]
c. E-cigarettes could be a "gateway" to other tobacco use.	36 [69.2]	16 [30.8]
d. E-cigarettes are a helpful aid for smoke cessation.	30 [57.3]	22 [42.3]
e. E-cigarettes can lower the risk of cancer.	24 [46.2]	28 [53.8]
f. E-cigarettes encourage smoking continuation among smokers who might otherwise have quit.	31 [59.6]	21 [40.4]
g. It is better to recommend e-cigarettes to smokers who do not want to quit.	25 [48.1]	27 [51.9]
h. It is better to recommend e-cigarettes to smokers who failed to quit with conventional smoking cessation treatment.	24 [46.2]	28 [53.8]

The respiratory physicians were asked about measures that could contribute to the regulation of e-cigarettes and the responses are shown in Table 3.

Table 3: Respiratory Physicians' Views on the Regulation of Electronic Cigarettes

Questions Relating to Regulation of E-Cigarettes	Agree No & [%]	Disagree No & [%]
1. E-cigarettes advertising should be banned.	42 [80.8]	10 [19.2]
2. E-cigarettes should carry warning labels about their potential risks, like other tobacco products do.	51 [98.1]	1 [1.9]
3. E-cigarettes should be regulated by the South African Health Products Regulatory Authority (SAHPRA) for safety and quality standards.	37 [71.2]	15 [28.8]
4. 4E-cigarettes should be regulated in public spaces.	48 [92.3]	4 [7.7]
5. Use of e-cigarettes indoors should not be allowed.	45 [86.5]	7 [13.5]
6. There should be a minimum legal age to purchase e-cigarettes.	50 [96.2]	2 [3.8]

Table 4 presents a summary of the evaluation of the possible impact of the characteristics of respiratory physicians on their responses to specific variables in the questionnaire.

Table 4: Evaluation of the Impact of Pulmonologists' Characteristics on Responses to the Questionnaire

Extracts from the Questionnaire	Public vs Private Practitioners [n = 17 vs n = 17]	Smokers vs Non-smokers [n = 18] [n = 34]	Duration of Practice after Qualification [≥10 yrs vs <10 yrs] (n = 33) vs (n = 19)	Experience of Practitioners in Prescribing e-Cigarettes [Yes = 14; No = 38]
Experience in prescription of e- cigarettes	t = 2.015 p-value = 0.0540	t = 0.169 p-value = 0.8665	t = 0.097 p-value = 0.8432	N/A
How effective are e-cigarettes? [Effective]	t = 1.020 p-value = 0.3154	t = 0.602 p-value = 0.5499	t = 0.228 p-value = 0.7926	t = 0.050 p-value = 0.9603
E-cigarettes are safer than regular cigarettes: [Agree/Disagree]	t = 2.131 p-value = 0.0410	t = 0.211 p-value = 0.8337	t = 0.421 p-value = 0.6756	t = 0.644 p-value = 0.5225
E-cigarettes are a helpful aid to smoke cessation: [Agree Disagree]	t = 1.660 p-value = 0.1067	t = 0.145 p-value = 0.8853	t = 1.082 p-value = 0.2853	t = 1.125 p-value = 0.2171
E-cigarettes can lower cancer risk: [Agree/Disagree]	t = 1.220 p-value = 0.2314	t = 0.125 p-value = 0.9010	t = 1.15 p-value = 0.2556	t = 1.095 p-value = 0.2788
E-cigarettes encourage smoking continuation among smokers who might otherwise have quit: [Agree/Disagree]	t = 0.1584 p-value = 0.8754	t = 0.428 p-value = 0.6705	t = 0.621 p-value = 0.5374	t = 0.826 p-value = 0.4127
E-cigarettes advertising should be banned: [Agree/ Disagree]	t = 0.0860 p-value = 0.9320	t = 0.512 p-value = 0.6109	t = 0.215 p-value = 0.8304	t = 01.357 p-value = 0.1809
E-cigarettes should carry warning labels about their potential risk like other tobacco products: [Agree/Disagree]	t = 0.125 p-value = 0.9013	t = 0.162 p-value = 0.8720	t = 0.142 p-value = 0.8877	t = 0.158 p-value 0.8751

E-cigarettes should be regulated by SAHPRA for safety and quality standards: [Agree/ Disagree]	t = 0.421 p-value = 0.6766	t = 0.652 p-value = 0.	t = 1.330 p-value = 0.1896	t = 0.964 p-value = 0.3397
There should be a minimum age to purchase e-cigarettes: [Agree/Disagree]	t = 0.126 p-value = 0.9005	t = 0.145 p-value = 0.8853	t = 0.138 p-value = 0.8908	t = 1.380 p-value = 0.1737

Discussion

Sixty-seven percent of the pulmonologists polled felt that e-cigarettes were not effective smoking cessation adjuncts. This finding is in keeping with concerns echoed by clinicians in other studies, indicating their misgivings about the effectiveness of these devices [19,20]. In cases where reasons for not recommending e-cigarettes for smoking cessation were given, clinicians cited paucity of evidence on the effectiveness and short- and long-term safety.

Almost 79% of the respondents in this study indicated that e-cigarettes had less injurious health effects in comparison to conventional cigarettes. In a United States primary care providers' study, 40% of the physicians were also of the opinion that e-cigarettes were safer than conventional cigarettes and smokeless tobacco [21]. Research on the health effects of e-cigarettes is still in its early stages. A recent study found that, in the long-term, e-cigarette only use was associated with lower levels of harmful substances (carcinogens and toxins) in comparison to traditional cigarettes [22,23].

The majority of the practitioners (96.2%) felt sufficiently confident about their knowledge and understanding of e-cigarettes to have a conversation with their patients. As a matter of fact, 26.9% had had occasion to prescribe e-cigarettes to their patients. This was different from the study carried out in South Korea among lung cancer specialists, where only a minority of the respondents (27.6%) in that survey were familiar with looking after patients who were users of e-cigarettes, and 84.3% reported discomfort with discussing e-cigarettes with the patients [24]. In a study by Pepper et al, a few participants were concerned that discussing e-cigarettes with their patients would encourage their use [21].

As health care providers, physicians are considered "credible sources of advice and support" [25]. As the use of e-cigarettes increases, smokers will increasingly focus their attention on their doctors for guidance regarding the use of these products. Respiratory physicians have a special role to play in smoking cessation programs. because they deal with smoking-related ill health on a regular basis and over years, and possess a wealth of knowledge and experience.

Almost thirty-three percent (32.7%) of the pulmonologists who responded were of the opinion that electronic cigarettes were effective smoking cessation adjuncts. This figure was 18% among family physicians in a study by Ofei-Dodoo and colleagues in the United States [26]. These clinicians believed that e-cigarettes were not only less toxic but were also an effective bridge to smoking cessation. In another study among North Carolina physicians, 35% recommended e-cigarettes to their patients because they believed in their usefulness for smoking cessation.14 Of the 35 physicians (pulmonologists, cardiologists, oncologists, primary care physicians, obstetricians, and gynecologists) who participated in a semi-structured interview administered by Singh and colleagues in 2017, half were of the opinion e-cigarettes could be an effective smoking cessation adjuncts [27].

On the question of whether e-cigarettes could potentially encourage the use of other tobacco products, 69.2% of the respondents in this study felt that this could be the case. In a study by Ofei-Dodoo et al, the respondents felt that e-cigarettes offered another delivery mechanism to become addicted to nicotine [26]. There concern was expressed by some of the respondents in Singh's study about the potential for a gateway effect in adolescents [27]. In a South Korean study among lung cancer specialists, more than 50% were of the opinion that e-cigarettes were a gateway to the use of other tobacco products.

The majority of those who responded to this survey were in support of strict e-cigarette regulations. This included measures such as the placing of warning labels on packaging (98%), the banning of advertisements (80%), a minimum purchasing age (96.2%), restriction of indoor use (86.5%), and regulation of use in public spaces (92%). In a nationwide South Korean survey of lung cancer specialists, 75.7% supported all forms of regulation of e-cigarettes; including regulation by the Food and Drug Administration (FDA) [24].

We could not find any statistically significant differences in attitudes towards electronic cigarettes between public and private pulmonary specialists. There was also no significant difference in their views regarding the regulation of electronic cigarettes. The attitudes towards e-cigarettes, in general, and the need to regulate their use were similar between those who had been practicing for 10 or more years versus those who had been in practice for less than 10 years. There were, however, twice as many pulmonologists in the public sector who felt that e-cigarettes were a safer option compared to the private pulmonologists ($p = 0.04$).

Ofei-Dodoo and colleagues looked at the relationship between the career status of their respondents and the decision to recommend e-cigarettes, and found that, while 80% of practicing physicians did not recommend e-cigarettes to patients, this figure was 89% for faculty physicians and 95% for resident-physicians [26].

There were no significant differences in attitudes toward e-cigarettes among smoking lung cancer specialist physicians compared to their non-smoking counterparts in the study by Singh and colleagues [27].

Conclusion

Judging by their responses, the majority of pulmonary physicians seem unconvinced about the usefulness of e-cigarettes in enhancing attempts at smoking cessation, and believe that some form of regulation over their use needs to be put in place. Pulmonologists are experts in respiratory medicine and would be called upon to help develop clinical guidelines and regulatory guidance on electronic cigarettes.

Issues concerning the safety and effectiveness of e-cigarettes as smoking cessation aids remain unanswered. For now, it would seem most appropriate for clinicians to provide smoking cessation counselling and encourage approved smoking cessation medication. Professional bodies need to provide continual guidance to clinicians in this regard, and regulations aimed at protecting the public from the potential harm of e-cigarettes are required until the evidence of their safety and efficacy is convincing.

As e-cigarette use increases, smokers and those considering starting the use of tobacco products will turn to their clinicians with queries regarding these products. Physicians, particularly respiratory physicians, have a special role in smoking cessation as they regularly treat the majority of smoking-related pathologies and, over years, establishing provider–patient relationships.

Contribution

Respiratory physicians are experts in respiratory medicine and their opinion is expected to be helpful in the development of clinical guidelines and the regulatory frame-work on the use of e-cigarettes.

References

1. Farsalinos KE, Romagna G, Tsiapras D, Kyrzopoulos S, Voudris V (2014) Characteristics, perceived side effects and benefits of electronic cigarette use: A worldwide survey of more than 19,000 consumers. Int J Environ Res Public Health 11: 4356-4373.
2. (2015) European Commission. Attitudes of Europeans towards tobacco and electronic cigarettes. Available from http://ec.europa.eu/public_opinion/archives/ebs/ebs_429_en.pdf.
3. (2015) World Health Organization Electronic cigarettes (e-cigarettes) or electronic nicotine delivery systems.http://www.who.int/tobacco/communications/statements/ eletronic_cigarettes/en/.
4. Glantz SA, Bareham DW (2018) E-cigarettes: Use, effects on smoking, risks, and policy implications. Annu Rev Public Health 39: 215-235.
5. Allen JG, Flanigan SS, LeBlanc M, Vallarino J, MacNaughton P, et al. (2016) Flavoring chemicals in e-cigarettes: diacetyl 2, 3-pentanedione, and acetoin in a sample of 51 products, including fruit-, candy-, and cocktail-flavored e-cigarettes. Environ Health Perspect 124: 733-739.
6. Pisinger C, Døssing M (2014) A systematic review of health effects of electronic cigarettes. Prev Med 69: 248-260.
7. Goniewicz ML, Knysak J, Gawron M, Kosmider L, Sobczak A, et al. (2014) Levels of selected carcinogens and toxicants in vapor from electronic cigarettes. Tob Control 23: 133-139.
8. Krist AH, Davidson KW, Mangione CM, Barry MJ, Cabana M, et al. (2021) Interventions for tobacco smoking cessation in adults, including pregnant persons: US Preventive Services Task Force Recommendation Statement. JAMA 325: 265-279.
9. (2020) United States Public Health Service Office of the Surgeon General; National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. Chapter 6, Interventions for Smoking Cessation and Treatments for Nicotine Dependence. In Smoking cessation: A report of the surgeon general [Internet]. Washington (DC): US Department of Health and Human Services https://www.ncbi.nlm.nih.gov/books/NBK555596/.
10. Hajek P, Phillips-Waller A, Przulj D, Pesola F, Smith KM, et al. (2019) A randomized trial of e-cigarettes versus nicotine-replacement therapy. N Engl J Med 380: 629-637.
11. Hartmann-Boyce J, McRobbie H, Lindson N, Bullen C, Butler AR, et al. (2022) Electronic cigarettes for smoking cessation. Cochrane Database Syst Rev 11: CD010216.
12. Bals R, Boyd J, Esposito S, Foronjy R, Hiemstra PS, et al. (2019) Electronic cigarettes: A task force report from the European Respiratory Society. Eur Respir J 53: 1801151.
13. Corkill J, Faber S, Irshad F, Valerio C, Moonsie I, et al. (2018) Tobacco dependence and vaping: S53 UK doctors current perceptions of E-cigarettes (vaping). Thorax 73.
14. Kandra KL, Ranney LM, Lee JG, Goldstein AO (2014) Physicians' attitudes and use of e-cigarettes as cessation devices, North Carolina, 2013. PLoS One 9: e103462
15. Feng Y, Wang F, Abdullah AS, Wang X, Wang J, et al. (2019) Beliefs, attitudes, and confidence to deliver electronic cigarette counseling among 1023 Chinese physicians in 2018. Int J Environ Res Public Health 16: 3175.
16. Van Gucht D, Frank Baeyens F (2016) Health professionals in Flanders perceive the potential health risks of vaping as lower than those of smoking but do not recommend using e-cigarettes to their smoking patients. Harm Reduct J 13: 2-8.
17. Dwedar I, Ruby D, Mostafa A (2019) A survey exploring knowledge and beliefs about electronic cigarettes between health care providers and the general population in Egypt. Int J Chron Obstruct Pulmon Dis 14: 1943-1950.
18. Rose AD, Filion KB, Eisenberg MJ, Franck C (2015) Electronic cigarettes: A comparison of national regulatory approaches. Can J Public Health 106: e450-e453.
19. Meernik C, Goldstein AO (2016) Should clinicians recommend e-cigarettes to theirpatients who smoke? No. Ann Fam Med 14: 302-303.
20. Crowley RA (2015) Electronic nicotine delivery systems: Executive summary of a policy position paper from the American College of Physicians. Ann Intern Med 162: 583-584.
21. Pepper JK, McRee AL, Gilkey MB (2014) Healthcare providers' beliefs and attitudes about electronic cigarettes and preventive counselling for adolescent patients. J Adolesc Health 54: 678-683.
22. Jackson S, Bullen C (2022) UK report underscores potential for e-cigarettes to reduce smoking harm. The Lancet 400: 1741-820.
23. Shahab L, Goniewicz ML, Blount BC, West R, Brown J, et al. (2017) Nicotine, carcinogen, and toxicant exposure in long-term e-cigarette and nicotine replacement therapy users: a cross-sectional study. Ann Intern Med 166: 390-400.
24. Shin DW, Kim YI, Kim SJ, Kim JS, Chong S, et al. (2017) Lung cancer specialist physicians' attitudes towards e-cigarettes: A nationwide survey. PLoS ONE 12: e0172568.
25. McNeill A (2016) Should clinicians recommend e-cigarettes to their patients who smoke? Yes. Ann FAM Med 14: 300-301.
26. Ofei-Dodoo S, Kellerman R, Nilsen K, Nutting R, Lewis D (2017) Family physicians'perceptions of electronic cigarettes in tobacco use counselling. J Am Board Fam Med 30: 448-459.
27. Singh B, Hrywna M, Wackowski OA, Delnevo CD, Lewis MJ, et al. (2017) Knowledge, recommendation, and beliefs of e-cigarettes among physicians involved in tobacco cessation: A qualitative study. Prev Med Rep 8: 25-29.

Copyright: ©2024 Matlawene John Mpe. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.