Prisoners and cigarettes or ‘imprisoned in cigarettes’? What helps prisoners quit smoking?

Elias Makris1*, Konstantinos I Gourgoulianis1 and Chrysi Hatzoglou1,2

Abstract

Background: The aim of the study was, despite the special characteristics of prisons, to identify the features which led prisoners who attended the Smoking Cessation Centre at the Kassavetia Detention Centre in Volos (region of Thessaly, in the central part of mainland Greece) to quit smoking.

Methods: Personal interviews with 204 male prisoners irrespective of smoking habitus over the period June 2008 to December 2010 were obtained. Information about medical history, history of tobacco use and addiction to narcotic use was obtained and imprisonment status was recorded. Pharmaceutical treatment (Varenicline) and counselling or only counselling were suggested as alternative strategies to them in order to help quit smoking. SPSS v15.0 software was employed, descriptive statistics were used, and a $X^2$ independence test and Student’s t-test were performed.

Results: Of the sample examined, 75.5% (154) were smokers. They were mainly Greeks (51.5%), single (53.4%) and had not graduated from a high school (secondary education level) (70.6%). 59.75% begun smoking early (≤ 14 years of age) and 64.9% were highly addicted according to Fagerstrom Tolerance Questionnaire. 74% (114) of all smokers at the prison attended the Smoking Cessation Centre. Of them, 30.7% were able to quit smoking at 3 months but 1 year later there were 20.2% ex-smokers. The key characteristics of those who were able to be ex-smokers were a change in smoking habits (decreased) compared to when free ($p = .001$), previous attempts to quit (while incarcerated and in general) ($p = .001$), average dependence levels ($p < .001$), started smoking after 21 years of age ($p = .032$), no history of addictive substance use ($p = .029$), being already prisoners for a longer period of time ($p = .019$), a limited number (3.9 ± 3.4) of prisoners per cell ($p < .001$) and in particular a limited number (2.8 ± 3.2) of smokers in the cell ($p < .001$).

Conclusions: Average dependence, a past free of addictive substance abuse and a better environment of daily living for certain prisoners (as far as the number of cellmates was concerned) had a catalytic impact on prisoners finally managed to quit smoking.

Keywords: Quit smoking intervention, Prison, Smoking cessation centre, Imprisonment status, Smoking cellmates, Attempts to quit smoking

Background

The percentage of smokers internationally among special population groups such as prisoners is still high, at around 81% [1]. Smoking is one factor which causes diseases or can worsen the existing condition of health of prisoners, and with the exception of a few countries (USA, Australia), has not been adequately taken into account in relation to taking the decision to quit smoking [2,3]. Compared to the general population, the population of prisoners is disproportionally affected by health problems, including the use of addictive substances [4,5]. Detention creates obstacles in the provision of medical and hospital care in Greece either because of lack of easy access at all healthcare levels or due to staff shortages [6].

For the last 10 years, the Respiratory Department of the University of Thessaly has been testing the general population in 4 prefectures in central Greece by performing spirometry tests to diagnose chronic obstructive
pulmonary disease early, and attended the Kassavetia Detention Centre in Volos with a population of 220 male prisoners for that purpose (no regulation regarding smoking). This is a low security rural prison in the prefecture of Magnesia. Quite a few of the prisoners (∼ 50) tested, stated that they wished to quit smoking permanently with medical assistance.

The high percentage of smokers in prisons and the apparently increasing number of prisoners who intended to quit smoking (expressed their wish to stop smoking on a daily basis) led to a well-planned series of measures being taken to assist this vulnerable, sensitive social group by setting up a permanent Smoking Cessation Centre at the prison.

To run a Smoking Cessation Centre for prisoners needs to consider specific aspects of closed settings: the stress [7] over lack of liberty and absence of family, the prison overcrowding [8] with smokers and non-smokers being engaged in the same cell, transfers to other prisons or court appearances [9], high degree of nicotine dependence [10] and prison leave granted in accordance with law [11].

Methods
Participants
The Hellenic Ministry of Justice, Department of Correctional Policy, granted ethical approval to run the Smoking Cessation Centre at the Kassavetia Detention Centre in Volos. A personal meeting with prisoners, without a guard being present, was chosen in order to protect medical confidentiality and to develop a trust-based relationship with the 204 male prisoners (smokers, ex-smokers and non-smokers) who voluntarily [12] attended the Centre over the period June 2008 to December 2010. The data was collected by research fellows and regular medical staff.

Materials and methods
During the interview, all prisoners were informed about the harmful effects of smoking, and information was collected using questionnaires which were filled out / answered by the inmates or where it was needed by the medical staff. The methodology employed was as follows:

- A medical history was taken (age, marital status, education level, body mass index, personal medical history and number of diseases, family medical history and number of diseases, respiratory symptoms – features and duration: cough, sputum, wheezing, dyspnoea, number of respiratory symptoms, blood pressure, pulse, pharmaceutical treatment for existing diseases, visits to doctors and diagnoses based on individual health booklet).
- Data was collected regarding the use of addictive substances or narcotics (age at the onset of use, pharmacological category of substance, number of substances, attempts at quitting, duration of substance-free period).
- Imprisonment status was also recorded (reason for imprisonment, length of sentence, remaining sentence to be served, first time imprisonment or repeated offender, convicts, prisoners on remand or awaiting deportation, number of cellmates, number of cellmates who smoked, prison work, type of work and hours spent at work, whether exercise is taken during detention, hobbies in free time).

In addition, the following information was collected for smokers:

- A smoking history [age at initiation of smoking, reason for starting, pack/years, cigarettes per day over the last year, whether they combine cigarettes with something else (for example: coffee, food), use of other tobacco products, monthly expenditure on smoking, who covers the cost, whether smoking habits have changed in relation to life outside of prison, whether they want to quit smoking or not, reason for their wish to quit or not, previous attempts to quit (inside or outside prison), method / number of attempts, smoking-free period, rating on the Fagerstrom nicotine dependence scale [13].

The medicinal product used was Varenicline [14] at the recommended dose for a period of 3 months, or 4 months if required. Recommended dose in Greece:

- Day 1–3: 0.5 mg once per day
- Days 4–7: 0.5 mg twice per day
- Days 8-completion of treatment: 1 mg twice per day

Pharmaceutical treatment using varenicline (free of charge) and counselling or counselling alone were offered to prisoners. Counselling was provided by specially trained medical staff. A 45–60 minute follow-up was carried out every week on patients during the first month of treatment and every second week in the following months to check their progress in quitting smoking. This was measured via self-reports and via CO levels measurements on every visit. During these follow-up, treatment was discussed in relation to any side-effects, how withdrawal symptoms were being dealt with, how to prevent relapse, and how to boost patient morale by rewarding their endeavours. There was no comparison of cessation rates for both treatments due to the small number of participants who preferred counseling sessions. The Smoking Cessation Centre in prison runs permanently and after the study period offers to incoming prisoners the same choice of treatment.
Data analysis
SPSS v15.0 software was employed, descriptive statistics were used, and a $X^2$ independence test and Student’s t-test were performed. In this paper the variables are presented as the mean ± the standard deviation (SD). Results with a $p < 0.05$ were deemed to be statistically significant.

Results
Sample
Of the 204 male prisoners studied 154 (75.5%) were smokers, 15 (7.35%) ex-smokers and 35 (17.15%) non-smokers. Their mean age was 33.6 ± 12.5 years.

Demographic information
Out the 204 prisoners who attended the Centre the majority was primarily Greek (51.5%), single (53.4%) and had not finished secondary education (70.6%). The results regard the whole sample: smokers, former smokers and non-smokers. A significant percentage of smokers (22.1%) were illiterate (who do not read/write even if they attended school). Demographic data of the study in detail for every category of participants are presented in Table 1.

Imprisonment status
The mean sentence being served by prisoners who attended the Centre was $27.4 \pm 36.7$ months, and 77.9% had been convicted and 75% imprisoned for the first time. The mean number of cellmates who smoked was $5.8 \pm 3.6$ (in each cell live 6 to 12 inmates). Non-smokers shared their cell more frequently with smokers than smokers ($p = <.001$). Table 2 displays these results.

Smoking status
The smoking history of smokers attending the Centre showed that they smoked $27.8 \pm 13.2$ cigarettes per day. 49.4% smoked 20 or fewer cigarettes per day while 50.6% smoked over 20 (smoking habits in prison). The number of cigarettes smoked increased by 37.65% over the length of time they were in prison (prisoners who intended to quit smoking: 34.2% and prisoners who did not intend to quit:47.5%). 23.4% had made previous attempts to quit and after participating in the study that percentage augmented −74%. The vast majority (63.15%) of those who want to quit smoking had nicotine high dependence on nicotine, started smoking early in their lifes ($\leq 14$ years) and smoked less cigarettes than prisoners who did not want to quit smoking. Almost all (96.1%) smokers knew that smoking harmed their health. Table 3 displays these results.

| Table 1 Demographic data of total number of participants in questionnaires |
|---|---|---|---|---|
| Characteristics | Smokers | Ex-smokers | Non-smokers | Total |
| n (%) | n (%) | n (%) | n (%) |
| Marital status | | | | |
| single | 83 (53.9) | 6 (40) | 20 (57.15) | 109 (53.5) |
| married | 40 (26) | 5 (33.3) | 9 (25.7) | 54 (26.45) |
| divorced | 23 (14.9) | 4 (26.7) | 6 (17.15) | 33 (16.15) |
| widowed | 8 (5.2) | 0 (0) | 0 (0) | 8 (3.9) |
| Education | | | | |
| illiterate | 34 (22.1) | 1 (6.7) | 2 (5.7) | 37 (18.15) |
| primary school | 42 (27.3) | 3 (20) | 9 (25.7) | 54 (26.5) |
| junior high school | 37 (24) | 5 (33.3) | 11 (31.4) | 53 (25.95) |
| senior high school | 32 (20.8) | 5 (33.3) | 8 (22.9) | 45 (22.05) |
| technological college | 0 (0) | 0 (0) | 1 (2.9) | 1 (0.5) |
| university | 9 (5.8) | 1 (6.7) | 4 (11.4) | 14 (6.85) |
| Nationality | | | | |
| Greek | 83 (53.9) | 8 (53.3) | 14 (40) | 105 (51.5) |
| Albanian | 30 (19.5) | 4 (26.7) | 10 (28.6) | 44 (21.5) |
| Bulgarian | 12 (7.8) | 0 (0) | 5 (14.3) | 17 (8.4) |
| Other nationality | 29 (18.8) | 3 (20) | 6 (17.1) | 38 (18.6) |
| Mean | 33.9 | 37.5 | 30.9 | 33.6 |
| S.D. | 13 | 12.2 | 9.7 | 125 |
Factors influencing cigarette smoking and smoking cessation

The main reason reported by participants for wanting to quit smoking (a single answer was requested) was respiratory symptoms (31.6%), and for denying to quit (one or more answers) was the lack of liberty and the absence of family (100%). Lack of liberty and the absence of family (49.4%) and enforced cohabitation in the same cell with other smokers (26.5%) were the main reasons why those who attempted to quit failed to actually quit smoking. Table 4 displays these results.

Treatment interventions

Of the 114 smokers who intended to quit smoking (74%), majority choose the combined treatment. More

| Characteristics                                      | Smokers | Ex-smokers | Non-smokers | Total |
|------------------------------------------------------|---------|------------|-------------|-------|
|                                                       | n (%)   | n (%)      | n (%)       | n (%) |
| Detention (1)                                        |         |            |             |       |
| first-time offender                                  | 108 (70.1) | 11 (73.3)  | 34 (97.1)   | 153 (75) |
| repeat offender                                      | 46 (29.9)  | 4 (26.7)   | 1 (2.9)     | 51 (25) |
| Detention (2)                                        |         |            |             |       |
| convicted prisoner                                   | 116 (75.3)| 15 (100)   | 28 (80)     | 159 (77.95) |
| prisoner on remand                                   | 38 (24.7)  | 0 (0)      | 7 (20)      | 45 (22.05) |

| Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
|------|------|------|------|------|------|------|------|
| 28.2 | 38.7 | 16.6 | 14.7 | 28.7 | 34.4 | 27.4 | 36.7 |

| Characteristics                                      | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
|------------------------------------------------------|------|------|------|------|------|------|------|------|
| length of sentence already served (months)            |      |      |      |      |      |      |      |      |
| cellmates                                            | 6.7  | 3.8  | 5.7  | 4.1  | 7.7  | 3.7  | 6.8  | 3.8  |
| smoking cellmates                                    | 5.7  | 3.6  | 4.7  | 3.8  | 6.5  | 3.3  | 5.8  | 3.6  |

Table 3 Smoking history of prisoners who intended/not intended to quit smoking

| Characteristics                                      | Intention to quit smoking | No intention to quit smoking | Total |
|------------------------------------------------------|---------------------------|-----------------------------|-------|
|                                                       | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| Cigarettes/day                                       | 26.8 | 13.1 | 30.5 | 13.4 | 27.8 | 13.2 |
| Years of smoking                                     | 18.7 | 12.8 | 19.1 | 12.3 | 18.8 | 12.6 |
| Pack/Year (PYS)                                      | 23.2 | 20   | 26.8 | 19.4 | 24.1 | 19.8 |

| Smoking initiation at                                 | n (%) | n (%) | n (%) |
|------------------------------------------------------|-------|-------|-------|
| ≤14                                                  | 61 (53.5) | 34 (85) | 95 (61.7) |
| 15-20                                                | 40 (35.1) | 2 (5) | 42 (27.3) |
| ≥21                                                  | 13 (11.4) | 4 (10) | 17 (11) |

| Fagerstrom Tolerance Questionnaire                    | n (%) | n (%) | n (%) |
|------------------------------------------------------|-------|-------|-------|
| high dependence                                      | 72 (63.15) | 28 (70) | 100 (64.9) |
| average dependence                                   | 27 (23.7)  | 9 (22.5) | 36 (23.4) |
| low dependence                                       | 15 (13.15) | 3 (7.5)  | 18 (11.7) |

| Smoking habits in prison                              | n (%) | n (%) | n (%) |
|------------------------------------------------------|-------|-------|-------|
| increased                                            | 39 (34.2) | 19 (47.5) | 58 (37.65) |
| decreased                                            | 36 (31.6) | 10 (25)  | 46 (29.9) |
| remained the same                                    | 39 (34.2) | 11 (27.5) | 50 (32.45) |

| Previous attempts to quit smoking                     | n (%) | n (%) | n (%) |
|------------------------------------------------------|-------|-------|-------|
|                                                     | 30 (26.3) | 6 (15)  | 36 (23.4) |

| Current attempts to quit smoking                      | n (%) | n (%) | n (%) |
|------------------------------------------------------|-------|-------|-------|
|                                                     | 114 (100) | 0 (0)  | 114 (74) |

| Yes, smoking harms health                             | n (%) | n (%) | n (%) |
|------------------------------------------------------|-------|-------|-------|
|                                                     | 112 (98.2) | 36 (90)  | 148 (96.1) |
specifically 98 (86%) received Varenicline treatments and
counselling, 29 (29.6%) completed the treatment and an-
other 16 (14%) only received counselling as was their
wish. 35 (30.7%) managed to quit smoking at the end of
3 months of treatment (varenicline and counselling:27,
counselling:8) and 1 year later there were 23 ex-smokers
(20.2%) (varenicline and counselling:19, counselling:4).
Table 5 displays these results.

### Quit smoking characteristics

Statistical analysis correlated characteristics which
encouraged those prisoners (n = 23) who were able to
quit smoking (ex-smokers: did not smoke for at least a
year) achieve their goal and set them apart from those
who did not achieve to quit smoking. These sets of char-
acteristics related to (a) smoking history, (b) previous
use of addictive substances and (c) the special features of
their life in prison. The first set indicates that ex-
smokers started smoking after 21 years of age (p = .032),
had average levels of dependence (p < .001), reduced
levels of smoking while in prison (p = .001), smoked
20.2 ± 8.5 cigarettes smoked per day (p = .006) and previ-
ous attempts to quit (p = .001). Table 6 displays these
results. The second set shows that ex-smokers showed
less substance abuse in the past) (p = .029). Table 7 dis-
plays these results. The third set included the small
number of cellmates (p < .001), the small number of
smokers in the cell (p < .001) and the greater length of
the sentence (p = .019), all characteristics which differed
for those prisoners who did not manage to quit smoking.
Table 8 displays these results.

### Discussion

Smoking cessation interventions in correctional systems

This is the first time a permanent prison Smoking Cessa-
tion Centre has been set up and run in Greece and one of
the few worldwide. Studies conducted abroad have pri-
marily focused on smoking habits among prisoners and
the factors affecting them, their desire to quit smoking
and have only outlined recommendations about how to
intervene with this special population group so as to help
them quit smoking. There have been few interventions in
prisons (mainly women’s prisons) involving psychotherapy
and nicotine substitutes. Moreover, international studies
[10,15] have also been carried out at prisons where total
or partial smoking bans have been in place, and have dealt
with prisoner (and employee) compliance with the ban,
and nicotine withdrawal symptoms No such study has
been carried out in Greece.

This well-planned intervention from the Respiratory
Department of the University of Thessaly, involving the
establishment of a Smoking Cessation Centre at the
prison, was the stimulus and incentive that led both ac-
tive and passive smokers to visit the Centre. Everyone
was informed about the effects of smoking, about the
benefits of quitting smoking, and a medical history was
undertaken. Furthermore, medical consultation was pro-
vided to anyone who asked for it.

Correational populations and differences compared to the
general population

This is the first study in Greece on the smoking habits
of the prison population and it showed several differ-
ces compared to the general population. It has been
reported that Greeks (especially Greek men) are in the
first position at European and worldwide studies in
terms of the number of smokers, with the figure close to
49.9% [16]. 51.5% of the prison population studied were
Greeks and we observed that the percentage of smokers
is even higher (75.5%), which is in accordance with stud-
ies in the international literature on similar populations.

### Table 4 Reasons for intention/no intention to quit and
failed attempt to quit smoking

| Reasons for intention to quit smoking | Smokers n (%) |
|--------------------------------------|---------------|
| respiratory symptoms                 | 36 (31.6)     |
| health problems                      | 24 (21.1)     |
| improved physical condition          | 13 (11.4)     |
| smoking dependence                   | 11 (9.6)      |
| other reasons                        | 30 (26.3)     |

### Table 5 Quit smoking intervention

| Treatment                        | Intention to quit smoking n (%) | Initial cessation n (%) | Ex-smokers n (%) |
|---------------------------------|--------------------------------|------------------------|-----------------|
| Varenicline and counselling     | 98 (86)                        | 27 (27.55)             | 19 (19.4)       |
| counselling                     | 16 (14)                        | 8 (50)                 | 4 (25)          |
| TOTAL                           | 114 (100)                      | 35 (30.7)              | 23 (20.2)       |
| Integrated treatment            | 29 (29.6)                      | 19 (70.4)              | 17 (62.3)       |
[17], with a quite low smoking index for the general population [18]. In other words, smoking habits among the prison population are independent (different) compared to that of the general population, but always high. This finding is bolstered by the characteristics of smokers in the general population identified by a recent study which found that 42.7% have graduated a university and 32.9% started smoking between the ages of 15 and 18 [19], while 76.2% of smokers in prison had not completed education at school (secondary level) [20] and 62.5% had started smoking before the age of 14 years.

Special characteristics of prisoners
Factors such as (a) the lack of liberty and the absence of family resulting in intense stress, (b) prison overpopulation resulting in smokers and non-smokers sharing the same cell, without attempts being made to segregate them, (c) transfers to other prisons (either scheduled or for security reasons) or court appearances (for hearings – appeals or to give testimony), (d) nicotine dependence (and use of nicotine to reduce stress and help prisoners front their problems as reported by prison inmates) and (e) leave that certain prisoners are entitled to by law (some are not entitled to leave), during which they are in a completely different environment from that of the prison, because they are temporarily free, are factors which cause a worsening of or return to smoking habits among prisoners who smoke, whether they are attempting to quit or not. In other words prisoners who are trying to quit are relapsing and those who do not quit increase their use. Transfers and court appearances in particular interrupt medical follow up and they may cause relapses. Replies to the relevant questions during the interview clearly showed those factors which need to be taken into account to any intervention taken or planned in relation to this special population. Ignoring the nicotine dependence factor, which also exists among the general population, the other factors are different for

Table 6 Characteristics of smoking history that helped participants quit smoking

| Characteristics                                      | p-value | Ex-smokers n (%) | Smokers n (%) | Total n (%) |
|------------------------------------------------------|---------|------------------|--------------|------------|
| Age when they started smoking                        |         |                  |              |            |
| ≤14                                                  | ns      | 7 (30.45)        | 54 (59.3)    | 61 (53.5)  |
| 15-20                                                | ns      | 11 (47.8)        | 29 (31.9)    | 40 (35.1)  |
| ≥21                                                  | .032    | 5 (21.75)        | 8 (8.8)      | 13 (11.4)  |
| Fagerstrom Tolerance Questionnaire                   |         |                  |              |            |
| high dependence (7–10)                               | ns      | 6 (26.1)         | 66 (72.5)    | 72 (63.15) |
| average dependence (4–6)                             | <.001   | 13 (56.5)        | 14 (15.4)    | 27 (23.7)  |
| low dependence (0–3)                                 | ns      | 4 (17.4)         | 11 (12.1)    | 15 (13.15) |
| Smoking habits in prison                             |         |                  |              |            |
| increased                                            | ns      | 7 (30.4)         | 32 (35.15)   | 39 (34.2)  |
| decreased                                            | .001    | 14 (60.9)        | 22 (24.15)   | 36 (31.6)  |
| the same                                             | ns      | 2 (8.7)          | 37 (40.7)    | 39 (34.2)  |
| Previous attempts to quit smoking                    |         |                  |              |            |
| no                                                   | ns      | 10 (43.5)        | 74 (81.3)    | 84 (73.7)  |
| yes                                                  | .001    | 13 (56.5)        | 17 (18.7)    | 27 (26.3)  |

Table 7 Characteristics of past use of addictive substances that helped participants quit smoking

| Characteristics                                      | p-value | Ex-smokers n (%) | Smokers n (%) | Total n (%) |
|------------------------------------------------------|---------|------------------|--------------|------------|
| Use of addictive substances                           |         |                  |              |            |
| no                                                   | .029    | 19 (82.6)        | 51 (56)      | 70 (61.4)  |
| yes                                                  | ns      | 4 (17.4)         | 40 (44)      | 44 (38.6)  |

Table 8 Characteristics during life in prison help participants quit smoking

| Characteristics                                      | p-value | Ex-smokers Mean | Smokers Mean | Total Mean |
|------------------------------------------------------|---------|-----------------|--------------|------------|
| Number of cellmates                                  | <.001   | 3.9             | 7.3          | 3.5        |
| Number of smokers in cell                            | <.001   | 2.8             | 6.3          | 3.2        |
| Length of sentence (months)                          | .019    | 49.7            | 26.6         | 40.2       |
and representative of and characterise the prison population.

To ensure that the prison Smoking Cessation Centre operated without problems and that certain of those factors were eliminated, it was - and is - necessary for there to be frequent communication with the patients themselves and with the administration of the prison, and so far the results have been excellent. In this way transfers and leave (which are situations which change the daily habits of prisoners trying to quit smoking) are covered. Medical and counselling support continued to be provided in these cases so that there were no gaps or periods that patients were 'missing' from medical supervision. From the outset prison management was a valuable aid in running the Smoking Cessation Centre. Moreover, it is worth noting that the existence of the Centre at the prison was an incentive for both administrative staff and prison guards to quit smoking (staff and guards was not included in the program).

Conclusions

In conclusion, the Smoking Cessation Centre at the Kassavetia Detention Centre in Volos may be an important factor in improving the quality of life of prisoners for the remainder of their sentence and when they rejoin society by acting a) in a preventative - dissuasive manner by informing smokers, ex-smokers and non-smokers about the harmful effects of active and passive smoking and about the benefits of quitting smoking and b) in a therapeutic manner by administering Varenicline to smokers (with their consent) and by providing counselling.

The smoking cessation results of those persons who attended the Smoking Cessation Centre were particularly significant both initially after the end of treatment and in terms of final smoking cessation, especially when one takes into consideration the special conditions in prisons and the fact that smoking tends to increase by 34.2% among prisoners over the course of their sentence. The fact that after the Centre opened 73.4% of prisoners attempted to quit, whereas before the Centre was established only 23.4% had attempted to quit, is also a success. Average dependence, a past free of addictive substance abuse and a better environment of daily living for certain prisoners (as far as the number of cellmates was concerned) had a catalytic impact on prisoners finally managed to quit smoking.

Competing interests

The authors declare to have none competing interests.

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Author details

1Respiratory Department, University of Thessaly, Larissa 41110, Greece.
2Physiology Department, University of Thessaly School of Medicine, Larissa 41110, Greece.

Authors' contribution

Author EM wrote the protocol, conducted the statistical analysis and wrote the first draft of the manuscript and all authors contributed to and have approved the final manuscript. Author KIG designed the study. Author CH conducted literature searches and provided summaries of previous research studies.

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