

# **European Journal of Public Health Studies**

ISSN: 2668 - 1056 ISSN-L:2668 - 1056

Available on-line at: www.oapub.org/hlt

DOI: 10.46827/ejphs.v8i3.226

Volume 8 | Issue 3 | 2025

# THE CONNECTION OF AFTERLIFE AND NURSING CARE: A SPIRITUAL APPROACH TO DEALING WITH THE END OF LIFE<sup>1</sup>

Eirini H. Vogiatzaki<sup>1ii</sup>, Trifon D. Petonis<sup>2</sup>

<sup>1</sup>Secondary Education Teacher (PE 87.02 Nursing),
3rd EPAL of Heraklion,
Crete, Greece
Certified Adult Educator,
Greece

<sup>2</sup>M.Sc., M.Ed,
Finance Consultant Economist,
Athens, Greece

#### Abstract:

This article explores the connection between spirituality and the afterlife within the context of nursing care for terminally ill patients. The concept of life after death, a universal theme in all religious and philosophical traditions, profoundly influences patients' attitudes and perceptions towards the end of life. This concept also shapes the care practices implemented by nurses. Spirituality is recognized as a fundamental patient need, encompassing the search for meaning, a connection with something transcendent, and the need for hope and peace. Patients' spiritual demands often arise in conjunction with the psychological stages of grief: denial, anger, bargaining, depression, and acceptance. This preparatory grief affects both patients and their families. Nurses are called to respond sensitively and professionally to these needs, providing not only physical but also emotional and spiritual care. Concurrently, they face their own psychological burden, often experiencing burnout, anxiety, or emotional detachment. Education, professional experience, and systematic support are decisive factors in enhancing nursing competence and providing holistic, dignified end-of-life care. Acknowledging the spiritual dimension of human existence is not a luxury but a necessary condition for truly humane care.

**Keywords:** afterlife, spirituality, nursing care

<sup>΄</sup> ΜΕΤΑΘΑΝΑΤΙΑ ΖΩΗ ΚΑΙ ΝΟΣΗΛΕΥΤΙΚΉ ΦΡΟΝΤΙΔΑ: Η ΠΝΕΥΜΑΤΙΚΉ ΔΙΑΣΤΑΣΉ ΤΗΣ ΑΝΤΙΜΕΤΩΠΙΣΉΣ ΤΟΥ ΤΕΛΟΎΣ ΤΗΣ ΖΩΗΣ

<sup>&</sup>quot;Correspondence: email <u>vogiatzakirena@yahoo.gr</u>

# Περίληψη:

Το άρθρο αυτό διερευνά τη σχέση μεταξύ της πνευματικότητας και της μεταθανάτιας ζωής στο πλαίσιο της νοσηλευτικής φοοντίδας για τους ασθενείς σε τελικό στάδιο. Η έννοια της ζωής μετά τον θάνατο, ένα πανανθοώπινο θέμα σε όλες τις θρησκευτικές και φιλοσοφικές παραδόσεις, επηρεάζει βαθιά τις στάσεις και τις αντιλήψεις των ασθενών για το τέλος της ζωής. Αυτή η έννοια διαμορφώνει επίσης τις πρακτικές φροντίδας που εφαρμόζουν οι νοσηλευτές. Η πνευματικότητα αναγνωρίζεται ως μια θεμελιώδης ανάγκη του ασθενούς, που περιλαμβάνει την αναζήτηση νοήματος, τη σύνδεση με κάτι υπερβατικό, καθώς και την ανάγκη για ελπίδα και γαλήνη. Οι πνευματικές απαιτήσεις των ασθενών συχνά αναδύονται παράλληλα με τα ψυχολογικά στάδια του πένθους: άρνηση, θυμό, διαπραγμάτευση, κατάθλιψη και αποδοχή. Αυτό το προπαρασκευαστικό πένθος επηρεάζει τόσο τους ασθενείς όσο και τις οικογένειές τους. Οι νοσηλευτές καλούνται να ανταποκοιθούν με ευαισθησία και επαγγελματισμό σε αυτές τις ανάγκες, παρέχοντας όχι μόνο φυσική αλλά και συναισθηματική και πνευματική φοοντίδα. Παράλληλα, αντιμετωπίζουν το δικό τους ψυχολογικό φορτίο, βιώνοντας συχνά επαγγελματική εξουθένωση, άγχος ή συναισθηματική αποστασιοποίηση. Η εκπαίδευση, η επαγγελματική εμπειοία συστηματική υποστήριξη και η αποφασιστικούς παράγοντες για την ενίσχυση της νοσηλευτικής ικανότητας και την παροχή ολιστικής και αξιοπρεπούς φροντίδας στο τέλος της ζωής. Η αναγνώριση της πνευματικής διάστασης της ανθρώπινης ύπαρξης δεν είναι πολυτέλεια, αλλά αναγκαία προϋπόθεση για μια πραγματικά ανθρώπινη φροντίδα.

**Λέξεις κλειδιά:** μεταθανάτια ζωή, πνευματικότητα, νοσηλευτική φοοντίδα

# 1. Introduction

The concept of life after death has been a subject of human contemplation and belief since ancient times. Regardless of cultural or religious background, the belief that existence continues beyond natural death remains deeply rooted in many societies and influences both individual and collective attitudes towards the end of life. In the context of healthcare, and in particular nursing, perceptions of life after death are not simply philosophical or theological pursuits, but are directly linked to the practice of caring for patients in the final stages of their lives.

Spirituality plays a key role in the holistic approach to nursing care. According to relevant studies (Cheng et al., 2018; Lormans, 2021), many patients facing life-threatening illnesses express strong spiritual needs. These needs are not limited to religious sentiment, but concern deep existential searches and emotional desires, such as the need for hope, a sense of peace and moral support. At the same time, the importance that patients attach to discovering meaning and purpose in their lives, as well as to cultivating a positive attitude despite the deterioration of their condition, is highlighted. Acceptance of death as an inevitable natural event, preparation for mourning and spiritual relief

through a personal connection with something transcendent (God, universe, nature) often function as empowerment mechanisms, offering comfort and mental resilience (Rahnama et al., 2012).

The purpose of this article is to examine the connection between the concept of the afterlife and spirituality in the context of nursing care at the end of life. Focusing on both the needs of patients and the role of nurses, the importance of spiritual support and understanding of existential concerns in providing essential and dignified care will be highlighted.

# 2. Afterlife and spirituality

The approach to death differs significantly depending on the religious or philosophical context, influencing the individual's attitude towards life, care at the end of it and the perspective of posthumous existence. In the context of Orthodox Christian theology, a distinction is made between physical (or biological) death and spiritual death, that is, the alienation of man from divine grace. Spiritual life is placed at the center of Christian teaching, with believers being called to cultivate their inner purity, seeking to overcome sin and not to avoid the natural end (Katsimigas et al., 2007).

A fundamental dogma of the Orthodox faith is that the soul continues to exist after biological death, maintaining its independence and spiritual essence, as it separates from the perishable body (Katsimigas et al., 2007). Spiritual resurrection, according to the Fathers of the Church, is achieved through the active participation of man in the mysteries of the Church, especially in the Holy Eucharist, and his free choice to unite with God through the Grace of the Holy Spirit. Physical resurrection is placed eschatologically, during the expected Second Coming, and is associated with the transformation of man and the restoration of full communion with the Creator. The descent into Hades and the reversal of corruption embody the message that death is not the end but the transition to life in Christ (Katsimigas et al., 2007). In contrast, Islam understands death as an act that takes place according to the will of Allah and as the passage from earthly existence to the eternal afterlife. Man is held responsible for his actions in the earthly world and, after his judgment by God, is destined either for reward in heaven or punishment in hell. The concept of the afterlife is here directly linked to the moral imprint of earthly behavior (Papadopoulou et al., 2018).

In contrast, in Judaism, the teaching focuses on the present life and on the earthly action of man. There is no clear theological reference to heaven and hell in the sense that Christian doctrines give them. The meaning of human existence is based on everyday life, observance of the law and moral responsibility within this world (Papadopoulou et al., 2018).

In the philosophy of Buddhism, death is considered an integral part of the cycle of life (samsara) and does not mark the absolute cessation of existence. Transmigration is a basic doctrine, and the spiritual progress of the individual can lead him to Nirvana, a

state of complete liberation from pain and attachments, where the cycle of deaths ceases (Papadopoulou et al., 2018).

Finally, in Hinduism, death is not the end but the passage to a new level of existence. The soul (atman) is considered immortal and follows a continuous course of reincarnation. Each incarnation is part of a long evolutionary path, and the karma of the person determines the form and content of their next life. Final redemption is achieved by the union of the soul with the absolute (Brahman), which frees the person from the cycle of births and deaths (Papadopoulou et al., 2018).

Spirituality is a deeply personal dimension of human experience, shaped by sets of values, beliefs and cultural references and often influences both the person's attitude towards life and their choices in matters of health and care (Wright et al., 2008). Essentially, the spiritual dimension gives content and orientation to a person's life, connecting it with purpose, hope and deeper values (Woll et al., 2008). How each person perceives and expresses their spirituality varies significantly, making the concept highly subjective.

Although spirituality is often associated with religiosity, the two terms are not identical (Büssing et al., 2005). For some people, belief in a god or a religious system is an integral part of their spiritual identity; for others, however, spirituality may not include any religious element (Murray et al., 2004). There are also cases where people experience the social, cultural, and ritual aspects of religion more than its spiritual content (Miller & Thoresen, 2003). Especially in the case of patients with chronic and life-threatening illnesses, such as cancer, spiritual needs that could also be interpreted as religious are often manifested. However, even those who do not follow an organized religious system appear to form and adopt a set of values and existential beliefs that provide them with a sense of direction, purpose, and personal continuity (Mesquita et al., 2017). Thus, spiritual support assumes an essential role in the field of health care, regardless of religious beliefs.

# 3. Spiritual needs of patients at the end of life and their families

The needs that emerge in patients who are in the final stage of life, as well as in their family members, largely follow the known psychological stages of the mourning process. The first stage, that of denial, functions as a defense mechanism against the harsh reality of an unfavorable diagnosis. The patient, unable to accept the fact, tends to reject the results of medical examinations, questions the diagnosis, and even the scientific competence of health professionals. It is particularly important to distinguish between the true inability to understand medical information and the active refusal to accept reality (Tyrrell et al., 2023). Through denial, patients avoid facing the problem, refuse to discuss the illness, distance themselves from potential therapeutic interventions, and reject any thought related to death (Tyrrell et al., 2023).

In the next stage, that of anger, the awareness of the situation is accompanied by intense feelings of rage, injustice and powerlessness. In an attempt to process the

traumatic event, patients look for those responsible and may turn against their loved ones, medical staff, God or even themselves. This often leads to social withdrawal, aggression and interruption of communication with the supportive environment, as well as reduced cooperation with health care providers (Tyrrell et al., 2023).

During the negotiation phase, which follows anger, patients seek to maintain a sense of control over the illness and impending death. They express the hope of prolonging life through symbolic "agreements" either with God, with themselves, or with their doctors and caregivers. They promise to follow instructions, adopt a healthy diet, exercise, or even participate in religious rituals, hoping that these actions will prevent or delay the inevitable (Tyrrell et al., 2023).

The stage of depression is shaped by the profound realization of the terminal nature of the condition. Patients experience intense sadness, despair, and a sense of futility. Symptoms of depression may include loss of appetite or overeating, insomnia, difficulty concentrating, physical exhaustion, and generalized apathy, or even acceptance of the thought that life is losing its meaning (Di Matteo & Martin, 2011).

The stage of acceptance is the final phase of this process. Here, the patient stops resisting the reality of the disease and the idea of the imminent end. He recognizes the irreversible nature of the condition and often chooses inner peace. Communication is limited, quiet moments are preferred, and visits are reduced. Patients now focus on resolving practical issues, such as financial or inheritance issues, and prepare themselves and those around them for separation (Tyrrell et al., 2023).

Notably, although not classified as a stage of grief in the strict sense, is the anxiety experienced by patients in the final stage of life. The fear of death, physical suffering, loneliness and loss of quality of life create a particularly burdensome mental state (Di Matteo & Martin, 2011).

# 4. Providing nursing care to patients at the end of life and their families

Healthcare professionals, and nurses in particular, are called upon to face challenges related to the provision of care to terminally ill patients on a daily basis, which is often a particularly stressful and demanding process. The path to death burdens not only the patient himself, but also his family and care environment, as it is accompanied by a multitude of physical, mental and spiritual changes. The role of the nurse in this phase is multidimensional and is not limited to the management of physical symptoms, mainly pain, but also extends to the recognition and support of the emotional and existential needs of both the patient and their relatives (Tyrrell et al., 2023).

Within this context, psychological relief and spiritual relief during the period of so-called preparatory mourning emerge as decisive interventions. Acceptance of the situation, free expression of emotions, practicing relaxation and stress management techniques, as well as activities of a spiritual or symbolic nature, such as prayer, writing personal notes or diaries, can help both the patient and the family to process the impending end (Tyrrell et al., 2023). Understanding this psychodynamic process on the

part of nursing staff is necessary to ensure a smooth transition through each stage of mourning and to prevent confusion or emotional collapse.

Clear and targeted communication between health professionals and the patient's family environment is equally crucial. Timely information about the prognosis, expected changes, and the natural course of the disease facilitates adaptation and prevents misunderstandings or conflicts. Doctors, in collaboration with nurses and support services of the health system, such as pharmacy, social services and palliative care teams, form a comprehensive support network, adapted to the needs of each family (Tyrrell et al., 2023).

Research has documented that many nurses develop a deep desire to ensure the quality of end-of-life care, approaching death with sensitivity and professionalism. The concept of a "good death" includes full and meaningful support for the patient and their loved ones, encouraging their active participation in decision-making, as well as creating a calm and dignified environment (Becker et al., 2017). These goals are achieved through ongoing communication, in-hospital collaboration, and dialogue with the patient and their family, aiming for care that respects the uniqueness and needs of each person. It is worth noting that the perception of a good death differs between health professionals, patients, and family environments. While medical and nursing staff emphasize providing personalized care and achieving the highest possible quality of life, relatives often prioritize pain relief, avoiding unnecessary medical interventions, and maintaining a quiet, peaceful climate as prerequisites for a dignified farewell (Papadopoulos, 2014).

# 5. Problems and suggestions

Nurses, who constitute the largest professional group in the field of healthcare worldwide, play a crucial role in providing support to patients who are in the final stage of life. Their frequent and direct contact with patients and their families makes them the most present link in care, especially when it comes to palliative interventions (Schroeder & Lorenz, 2018). Palliative care, which aims to maintain the best possible quality of life, covers not only physical, but also psychological, social and spiritual needs, requiring nurses to be stable, understanding and supportive towards the patient and their environment.

One of the key features of this care is effective communication. Nurses are asked to use simple and clear language, take time to answer questions, provide useful and substantial information and repeat data in a way that facilitates understanding (Meller et al., 2019). However, this constant contact with the burden of impending death can lead to a high mental and professional burden. Nurses often show signs of fatigue, emotional exhaustion and anxiety, especially when they are not adequately prepared or feel inadequate in interacting with terminally ill patients. Some professionals consciously avoid discussing death, while others may resort to unclear or even inaccurate information as a form of defense (Huriah et al., 2021). These different reactions stem from a multitude of factors, such as personal beliefs about mortality, clinical experience, formal education

and the degree of familiarity with the palliative approach. Research has shown that higher levels of knowledge and more years of professional experience are associated with reduced anxiety about death and with more positive attitudes towards providing care to terminally ill patients (Yang et al., 2017).

Particular emphasis has been placed on undergraduate education, as it appears that the integration of palliative care into curricula contributes to the acceptance of mortality, the reduction of anxiety related to it, and the facilitation of communication between nurses, physicians, patients, and their families (Louka, 2021). At the same time, postgraduate training and continuing professional education have also been recorded as determining factors for the cultivation of professional competence and mental resilience (Rapsomanikis, 2023).

Multiple literature reports associate clinical experience in end-of-life care with a positive perception and acceptance of the palliative approach. However, psychological burden remains a significant issue. In the United States, as early as 2010, it was recorded that stress resulting from end-of-life care is recognized as one of the most important factors of burnout in the nursing profession (Kostka et al., 2021). Therefore, supporting nurses through institutional frameworks, educational opportunities, supervision, and psychological empowerment is essential not only to protect the professionals themselves, but also to maintain the quality of care in a field as sensitive and demanding as end-of-life care.

#### 6. Conclusions

Exploring the concept of afterlife and spirituality, as expressed in the context of end-oflife nursing care, highlights the deep interdependence of existential, psychological and cultural dimensions of human experience. Afterlife belief, whether religiously or philosophically founded, significantly influences the way in which patients experience impending death, while at the same time directing their expectations of the care system.

Spirituality, as a personal inner need for meaning, hope, connection and transcendence, cannot be isolated from the overall approach to the terminally ill patient. Whether expressed through religious forms or as a purely existential quest, it is a crucial axis of empowerment and relief. Therefore, the recognition and coverage of spiritual needs must be integrated as a basic element of holistic nursing care.

Patients at the end of life go through a psycho-emotional journey with multiple and often overlapping stages: from denial and anger, to negotiation, depression and finally acceptance. Understanding these stages by health professionals is a prerequisite for providing care that respects the uniqueness of each person, reduces the psychological burden and enhances the quality of separation.

In addition, nurses play a crucial role in the path to death, as constant companions of patients and their families. However, constant exposure to the experience of loss carries a high risk of emotional exhaustion. Factors such as education, professional

experience, psychological support and empowerment of nurses prove crucial in preventing attrition and enhancing professional resilience.

Finally, it is clear that rethinking nursing education, strengthening interdisciplinary collaboration, and promoting the spiritual awareness of healthcare personnel can substantially improve the quality of end-of-life care. Human dignity, acceptance of the inevitable, and care that incorporates spirituality are not only goals, but also an ethical commitment for the healthcare community.

# **Conflict of Interest Statement**

The authors declare no conflicts of interest.

### About the Author(s)

**Vogiatzaki Eirini** is a Secondary Education teacher (PE 87.02 Nursing) at the 3rd EPAL of Heraklion, Crete, and a Certified Adult Educator. She holds a Bachelor of Science in Nursing from the Technological Educational Institute (T.E.I.) of Crete (2008), and two master's degrees: one in Health Unit Management from the Open University of Cyprus (2019) and a second in Education Sciences, Critical Pedagogy and Teacher Education from the University of Crete (2021). Her research interests focus on Nursing and educational theory. Her work is available on ORCID: <a href="https://orcid.org/0000-0002-7676-2517">https://orcid.org/0000-0002-7676-2517</a>

**Trifon D. Petonis** is an Economist, a graduate of the Athens University of Economics and Business (AUEB), formerly known as ASOEE, in 1986. He holds a Master's degree in Philosophy from the University of Athens (1987) and works as a freelancer/self-employed.

# References

- Becker CA, Wright G, Schmit K, 2017. Perceptions of dying well and distressing death by acute care nurses. Applied Nursing Research 33: 149-154. <a href="https://doi.org/10.1016/j.apnr.2016.11.006">https://doi.org/10.1016/j.apnr.2016.11.006</a>
- Büssing A, Matthiessen PF, Ostermann T, 2005. Engagement of patients in religious and spiritual practices: confirmatory results with the SpREUK-P 1.1 questionnaire as a tool of quality of life research. Health and Quality of Life Outcomes 3: 1-11. <a href="https://doi.org/10.1186/1477-7525-3-53">https://doi.org/10.1186/1477-7525-3-53</a>
- Cheng Q, Xu X, Liu X, Mao T, Chen Y, 2018. Spiritual needs and their associated factors among cancer patients in China: a cross-sectional study. Supportive Care in Cancer 26(10): 3405-3412. <a href="https://doi.org/10.1007/s00520-018-4119-z">https://doi.org/10.1007/s00520-018-4119-z</a>
- Di Matteo MR, Martin LR, 2011.Introduction to health psychology, Athens, Pedio. Retrieved from <a href="https://archive.org/details/healthpsychology0000dima">https://archive.org/details/healthpsychology0000dima</a>
- Huriah T, Hidayah N, Mikami A, 2021. Attitudes and Associated Factors towards Care for Dying Patients among Non-Palliative Care Nurses, Yogyakarta, Indonesia.

- IJNP (Indonesian Journal of Nursing Practices) 5(1): 9-16. https://doi.org/10.18196/ijnp.v5i1.10131
- Katsimigas G, MaragoutiA, Spiliopoulou X., GikaM, 2007. Nursing and theological approach to death. Nursing 46(4):441-452
- Kostka AM, Borodzicz A, Krzemińska SA, 2021. Feelings and emotions of nurses related to dying and death of patients—A pilot study. Psychology research and behavior management: 705-717. https://doi.org/10.2147/PRBM.S311996
- Lormans T, de Graaf E, van de Geer J, van der Baan F, Leget C, Teunissen S, 2021. Toward a socio-spiritual approach? A mixed-methods systematic review on the social and spiritual needs of patients in the palliative phase of their illness. Palliative medicine 35(6): 1071-1098. <a href="https://doi.org/10.1177/02692163211010384">https://doi.org/10.1177/02692163211010384</a>
- Louka N, 2021. Investigation of attitudes towards death among oncology and nononcology nurses. Diploma Thesis, University of West Attica
- Meller N, Parker D, Hatcher D, Sheehan A, 2019. Grief experiences of nurses after the death of an adult patient in an acute hospital setting: An integrative review of literature. Collegian 26(2): 302-310. <a href="https://doi.org/10.1016/j.colegn.2018.07.011">https://doi.org/10.1016/j.colegn.2018.07.011</a>
- Miller WR, Thoresen CE, 2003. Spirituality, religion, and health: An emerging research field. American psychologist 58(1): 24-35. <a href="https://doi.org/10.1037/0003-066x.58.1.24">https://doi.org/10.1037/0003-066x.58.1.24</a>
- Murray SA, Kendall M, Boyd K, Worth A, Benton TF, 2004. Exploring the spiritual needs of people dying of lung cancer or heart failure: a prospective qualitative interview study of patients and their carers. Palliative medicine 18(1): 39-45. <a href="https://doi.org/10.1191/0269216304pm8370a">https://doi.org/10.1191/0269216304pm8370a</a>
- Papadopoulou A, Apostolara P., Galani, P, KalokairinouA, 2018. Investigation of knowledge and attitudes of nursing staff regarding mourning and burial customs of people of different cultural origins. Greek Journal of Nursing Science 11(3): 48-58. Retrieved from <a href="http://journal-ene.gr/looking-into-the-knowledge-and-attitudes-of-nurses-regarding-mourning-and-burial-customs-of-people-with-different-cultural-background/?lang=en">http://journal-ene.gr/looking-into-the-knowledge-and-attitudes-of-nurses-regarding-mourning-and-burial-customs-of-people-with-different-cultural-background/?lang=en</a>
- Papadopoulos D, 2014. The behavior and perceptions of medical and nursing staff towards the care of terminally ill patients. Diploma Thesis, University of Thessaly
- Rahnama M, Khoshknab MF, Maddah SSB, Ahmadi F, 2012. Iranian cancer patients' perception of spirituality: a qualitative content analysis study. BMC nursing 11(1): 1-8. https://doi.org/10.1186/1472-6955-11-19
- RapsomanikisA, 2023. Knowledge and attitudes of health professionals regarding palliative care. Diploma Thesis, Hellenic Open University. <a href="https://doi.org/10.7759/cureus.54477">https://doi.org/10.7759/cureus.54477</a>
- Schroeder K, Lorenz K, 2018. Nursing and the future of palliative care. Asia-Pacific journal of oncology nursing 5(1): 4-8. https://doi.org/10.4103/apjon.apjon 43 17

- Tyrrell P, Harberger S, Schoo C, Siddiqui W, 2023. Kubler-Ross stages of dying and subsequent models of grief. StatPearls Publishing. Retrieved from <a href="https://www.ncbi.nlm.nih.gov/books/NBK507885/">https://www.ncbi.nlm.nih.gov/books/NBK507885/</a>
- Woll ML, Hinshaw DB, Pawlik TM, 2008. Spirituality and religion in the care of surgical oncology patients with life-threatening or advanced illnesses. Annals of Surgical Oncology 15: 3048-3057. <a href="https://doi.org/10.1245/s10434-008-0130-9">https://doi.org/10.1245/s10434-008-0130-9</a>
- Wright AA, Zhang B, Ray A, Mack JW, Trice E, Balboni T, Prigerson HG, 2008. Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. Jama 300(14): 1665-1673. https://doi.org/10.1001/jama.300.14.1665
- Yang FM, Ye ZH, Tang LW, Xiang WL, Yan LJ, Xiang ML, 2017. Factors associated with the attitudes of oncology nurses toward hospice care in China. Patient preference and adherence: 853-860. <a href="https://doi.org/10.2147/ppa.s132093">https://doi.org/10.2147/ppa.s132093</a>

#### Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Public Health Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a Creative Commons Attribution 4.0 International License (CC BY 4.0).