PSYCHIATRIKI

## Journal Pre-proof

# Atrial fibrillation: the impact of anxiety and depression on patients' needs

**Maria Polikandrioti**

**DOI:** https://doi.org/10.22365/jpsych.2021.013

**To appear in:** Psychiatriki Journal

**Received date:** 11 July 2020
**Accepted date:** 14 September 2020

**Please cite this article as:** Maria Polikandrioti, Atrial fibrillation: the impact of anxiety and depression on patients' needs, Psychiatriki (2021), doi: https://doi.org/10.22365/jpsych.2021.013

## RESEARCH ARTICLE

# Atrial fibrillation: the impact of anxiety and depression on patients' needs

**Maria Polikandrioti**

*Department of Nursing, University of West Attica, Athens, Greece*

**ARTICLE HISTORY:** Received 11 July 2020 / Revised 12 September 2020 / Published Online 26 March 2021

----------**ABSTRACT**----------

Atrial fibrillation (AF) is a common sustained cardiac arrhythmia, which is expected to expand enormously due to population ageing. The aim of the present study was to explore the significance of AF patients' needs and the associated factors as well as the impact of anxiety and depression on these needs. The sample of the study included 215 AF hospitalized patients. Data were collected by the completion of a questionnaire which, in addition to patients' characteristics, it also included the Hospital Anxiety and Depression Scale (HADS) and the questionnaire "Needs of hospitalized patients with coronary artery disease", that is evaluating the significance of the following 6 categories of needs: a) for support and guidance, b) for information from medical and nursing staff, c) for communication with other patients and family, d) for individualization of care and participation, e) to trust the medical and nursing staff and f) to meet emotional and physical needs. The statistical significance level was $p<0.05$. Of the 215 participants, 68.4% were men and 67.5% were > 60 years old. Moreover, 47.5% of the participants experienced anxiety and 29.5% depression. The need for support, to be informed and to trust the medical and nursing staff considered to be of high significance by the patients (median 29,20 and 6, respectively). Anxiety and depression were significantly associated with all patients' needs ($p<0.05$) apart from the need to meet the emotional and physical needs and the need to trust the medical and nursing staff, which were not associated with anxiety levels. In terms of patients' needs, those who reported to be little or not at all informed about their disease considered of a higher significance the need for support and guidance ($p=0.030$), the need to be informed and to trus the medical and nursing staff ($p=0.001$ and $p=0.012$, respectively) and the need for communication with other patients and family ($p=0.007$). The need for individualization of care and participation in it, was considered more significant by patients aged >70 years and those having no children ($p=0.039$ and $p=0.029$, respectively) while the need for communication with other patients and family was considered more significant by women ($p=0.028$). The present findings emphasize the importance of providing care tailored to meet the needs of AF patients who experience anxiety and depression.



**KEYWORDS:** Anxiety, depression, patients' needs, atrial fibrillation

**Corresponding Author:** Maria Polikandrioti, Department of Nursing, University of West Attica, 28 Agiou Spyridonos str., 12243 Egaleo, Athens, Greece. E-mail: mpolik2006@yahoo.com

**Introduction**

Atrial fibrillation (AF) which was discovered more than 100 years ago, it is nowadays a most common cardiac arrhythmia, worldwide.[1,2,3] In Australia, Europe and USA, the current estimated prevalence of AF is about between 1% to 4%, with lower prevalence in Asia (0.49%-1.9%). The higher prevalence rates of AF are found in developed countries, especially in North America, whereas the lowest in the Asia–Pacific area.[1] Given the prolongation of life expectancy and the improvements in survival resulting from the progress in medical therapies, AF is anticipated to affect 6–12 million people in the USA by 2050 and 17.9 million in Europe by 2060.[3] Additionally, geographical variations are reported; more elevated AF prevalence in high-income countries compared to low-middle ones.[3] These discrepancies are attributed to several limitations in health care services or to the diminished clinical data registry records.[3] AF is predominantly a disease of the elderly. In Western Europe, Australia and North America 70% of AF patients are aged >65 years.[4,5]

The most common type is permanent AF occurring in 40%–50% of patients, followed by the paroxysmal and persistent AF occurring in 20%–30% of cases.[2] Irrespective of type, this common sustained arrhythmia is associated with elevated health care expenditures (frequent and long hospitalizations or multiple emergency room visits), hypertension[6], increased risk of stroke,[7] high morbidity and mortality.[1,2] The nature of AF including unexpected onset or recurrent events, various symptoms (shortness of breath, palpitations, chest discomfort), complex treatment and several daily limitations may trigger psychological distress, in the form of anxiety and depression .[5,8,9]

Optimal management of this complex arrhythmia demands a patient centered care which is responsive to patient's preferences, needs and values. The ultimate goal of this approach is to empower patients to become active participants in their care. Patient-centered approach is associated with benefits such as stress alleviation, effective patient self-care, satisfaction from health care and adherence to therapy.[10,11,12] Needs' orientated approach becomes more demanding especially when patients experience depression or anxiety. Needs of depressed hospitalized cardiac patients are mainly determined by the severity of disease, physical and cognitive impairment, co-morbidities, difficulties to comply with the hospital's rules, and demographic factors (gender, and single).[13] Providing treatment to alleviate psychological distress to this population may achieve worldwide reductions in AF-related morbidity, mortality, and healthcare burden. [13,14]

To the best of our knowledge, data exploring needs of AF patients and the associated factors as well as the impact of anxiety /depression on needs are limited. Thus, the aim of this cross-sectional study was to explore the level of significance of AF patients' needs and the associated factors as well as the impact of anxiety and depression on patients' needs.

## Material and method

**Study Population**

In the present study, were enrolled 215 hospitalized patients diagnosed with permanent AF. This was a convenience sample. Patients were classified according to the current guidelines regarding type of AF.[14] Criteria for inclusion of patients in the study were: a) diagnosis of permanent AF, b) ability to write and read the Greek language fluently and c) be hospitalized

for at least 2 days. The exclusion criteria were: a) age <18 years, and b) diagnosis of paroxysmal and persistent AF.

**Data collection and procedure**

Collection of data was performed by interview using a questionnaire which was developed by the researcher so as to fully serve the purposes of the study. Completion of each questionnaire lasted approximately 15 min and took place for each participant at evening shift when patients were free of examinations or other medical procedures.

The data collected for each patient included socio-demographic characteristics (e.g., gender, age, education level, marital status, and number of children), clinical characteristics (e.g., years having the disease), and other self-reported characteristics (e.g., relations with the medical-nursing staff).

The study was approved by the Ethical Committee of the hospital where it was conducted. Patients who met the inclusion criteria were informed by the researcher for the purposes of this research. All patients participated only after they had given their written consent. Data collection guaranteed anonymity and confidentiality. All subjects had been informed of their rights to refuse or discontinue participation in the study, according to the ethical standards of the Declaration of Helsinki (1989) of the World Medical Association.

**Measures**

The Hospital Anxiety and Depression Scale (HADS)[15] was used for the assessment of depression and anxiety. The scale consists of 14 questions that assess how patients felt during the previous week. Patients were able to answer every question in a 4-point Likert scale from 0-3. Seven of 14 questions assess the level of depression and seven evaluate the anxiety level. Scores attributed to questions are summed separately for anxiety and depression, leading to two scores with range 0-21. Higher score indicates higher levels of anxiety and depression, respectively. In addition, the following categorization has been proposed and is widely used: score 0-8 indicating no stress or depression, score above 8 indicating clinically significant anxiety or depression. The Greek version of the HADS has been tested for its validity and reliability.[16]

The questionnaire "Needs of hospitalized patients with coronary artery disease" was used in order to assess the needs of AF patients. This questionnaire includes 39 statements regarding the significance of potential needs of cardiac patients during their hospitalization. This questionnaire consists of 6 sub-scales of potential needs. Patients were able to answer every question in a 4-point Likert scale from 1-4. Scores attributed to questions are summed separately for each sub-scale. Higher score indicate that the need was considered of high significance. The questionnaire 'Needs of hospitalized patients with coronary artery disease' had good reliability and validity in Greek population. More in detail, Cronbach's α for each sub-scale was as following:[17] Need for support and guidance, 0.922; Need to be informed from the medical-nursing staff, 0.918; Need for communication with other patient groups, and ensuring communication with family, 0.865; Need for individualization of care and patient participation in patient care, 0.861; Need to meet the emotional needs (eg anxiety, fear, loneliness) and the physical needs (such as relaxation, sleep, better conditions during hospitalization), 0.859; Need to trust the medical-nursing staff, 0.923

**Statistical analyses**

To test the existence of association between patient's needs and patient's anxiety/depression or patient's characteristics the Kruskal-Wallis test or the Mann-Whitney test was used, as well as the Spearman's rho correlation coefficient. Multiple linear regression was performed to estimate the effect of anxiety/depression and patient characteristics on the patient's needs

(dependent variable). The results are presented with β coefficients and 95% confidence intervals. The level of statistical significance was set to a = 5%. The analysis was performed with the statistical package SPSS, version 22 (SPSS Inc, Chicago, Il, USA).

## Results

**Patients' Characteristics**

68.4% of participants were men, approximately 67% over 60 years, 74.4% was married, 53.7% had primary education, 65.1% were pensioners, 67.4% leaved in Attica and 47% had two children. In terms of clinical characteristics, 43.9% of participants had also another disease, 57.2% had been previously hospitalized, 45.1% had the disease for less than a year while the median duration of hospitalization was 5 days. The majority of the sample reported to be very informed about their problem (51.6%) and to have very good relations with nursing and medical staff (76.2% and 73.2%, respectively).
(Table 1).

**Levels of Anxiety/Depression**

As presented in Table 2, almost half of the patients had clinically significant anxiety (47.5%) and 29.5% had depression. Cronbach's a coefficients of HADS subscales were above 0.7 indicating high reliability.

**Patients' needs**

Table 3 presents patients' self-report about the significance of their needs. Patients considered of low significance the 3 following needs: a) for communication, b) for individualization of care and c) to meet the emotional needs, since the median scores of these needs are close to the lower limit of the needs' ranges. On the contrary, patients considered of high significance the 3 following needs: a) for support, b) to be informed and c) to trust the medical and nursing staff (median, 29, 20 and 6, respectively).

**Association between patients' needs and their characteristics**

The associations between patients' characteristics and their needs based on univariate analysis are presented in Table 4. It was found that the degree of information was significantly associated with the need for support and guidance. In particular, patients who reported to be little or not at all informed considered this need of higher significance than patients who reported to be very or enough informed (median 31 vs. 29 and 23, p=0.030). Likewise, patients who reported to be little or not at all informed considered the need to be informed from the medical and nursing staff of higher significance than those very or enough informed (median 24 vs. 20 and 19, p=0.001).

The need for communication with other patient groups, and for communication with family was significantly associated with gender and degree of information (p=0.028 and p=0.007, respectively). In particular, female patients considered this need of higher significance than males (median 12 vs 10). Patients who reported to be little or not at all informed considered this need to be of a higher significance than those very or enough informed (median 14 vs. 10 and 9).

The need for individualization of care and patient participation in their care was significantly associated with age and number of children (p=0.039 and p=0.029, respectively). Patients aged above 70 years considered this need of a higher significance than younger patients (median 10 vs 7 and 9). Similarly, for patients that did not have any children compared to those with one or more children (median 11 vs 7 and 9).

The need to meet the emotional and the physical needs was not found to be statistically significant associated with any patient's characteristic.

The need to trust the medical and nursing staff was associated with the degree of information (p=0.012). Patients who reported to be little or not at all informed considered this need of a higher significance than patients that are very or enough informed (median, IQR was higher).

**Association between patients' needs and anxiety/depression**

The association between anxiety/depression and needs based on univariate analysis is presented in Table 5. It was found that all needs were statistically significant associated with depression levels and anxiety levels (p<0.05) apart from the need to meet the emotional and physical needs and the need to trust the medical and nursing staff, which were not associated with anxiety levels. Patients with high levels of anxiety/depression considered the needs of a higher significance than patients with moderate or low levels (higher medians).

**Effect of anxiety/depression and characteristics on patient's needs**

Multiple linear regression, after adjustment for the patients' characteristics that were significantly associated with the needs in the univariate analysis (Table 6), revealed that patients with depression consider *the need for support and guidance* 3.1 points more significant than patients without depression (95%CI: 1.70, 4.53, p=0.001). Likewise, patients with depression consider *the need to be informed from the medical and nursing staff and the need for communication with other patient, and family* 2.3 and 2.7 points respectively more significant than patients without depression (95%CI: 1.26, 3.34, p=0.001 and 95%CI: 1.38, 4.10, p=0.001 respectively). Moreover, patients that were less or not at all informed for the state of their health considered these needs 1.98 and 1.81 points respectively more significant than patients that were well-informed (95%CI: 0.62, 3.35, p=0.005 and 95% CI: 0.04, 3.59, p=0.046 respectively). Patients with high depression considered *the need for individualization of care and their participation* 2.67 points more significant than patients without depression (95%CI: 1.51, 3.82, p=0.001). Patients with depression consider *the need to meet the emotional and physical needs* 1.85 points more significant than patients without depression (95%CI: 0.75, 2.95, p=0.001). Likewise, patients with depression and those that were less or not at all informed for the state of their health consider *the need to trust the medical/nursing staff* 0.30 and 0.33 points respectively more significant than patients with without depression and those that were well-informed (95%CI: 0.08, 0.52, p=0.001 and 95%CI: 0.04, 0.62, p=0.025, respectively).



## Discussion

According to results of the present study, almost half of participants had clinically significant anxiety (47.5%) and 29.5% had depression. A prior study by Thrall et al.,[18] showed that one third of AF patients experienced high levels of depression and anxiety which persisted for 6 months. A relevant study in Greece, among 170 AF outpatients showed high anxiety and depression in 34.9% and 20.2% of the participants, respectively.[2] In a population sample of 10.000 individuals (mean age 56±11 years, 49.4% women) a higher burden of depressive symptoms in AF individuals was observed.[19] In community-dwelling population of 4979 individuals, (mean age 78.1 ±8.3 years, 52% males), AF was associated with higher depression prevalence, independently from demographic factors, disabilities and comorbidities (including history of stroke).[20] In the same study, self-reported AF history was associated with 42% increase of suspected depression.[20] Antidepressant treatment is associated with a three-fold higher risk of AF during the first month.[21]

Psychological distress in the form of depression and/or anxiety may be the environment for the initiation and perpetuation of AF and may also contribute to greater symptom severity and recurrence of this arrhythmia.[8,9] Several reasons trigger anxiety and depression among AF patients. More precisely, important sources for anxiety might be the frequent blood tests due to warfarin use, the regular follow-up appointments, the need to follow a strict diet, the potential medication side effects, (stomach bleeding or cerebral hemorrhage) and the fear of palpitations.[22] It is not rare that AF patients face financial losses or disruptions in their professional lives, thus exacerbating an already established anxiety.[22] In terms of depression, the associated behavioural factors such as unhealthy lifestyle and poor treatment adherence are responsible for adverse cardiac prognosis.[8,9]

Furthermore, the presence of depression and anxiety can minimize treatment effectiveness.[9] For instance, diagnosed anxiety among AF adults newly starting warfarin was associated with an increased risk for ischemic stroke and intracranial hemorrhage during follow-up.[23] Hence, recognition of psychological factors and implementation of strategies to reduce this burden in AF patients may improve treatment outcomes and patients' quality of life.[9,24] It is also essential to obtain clinical diagnosis of anxiety for differential diagnosis with depression which might be a comorbidity.[8]

Our results also relieved that participants considered of high significance the need for support, for information and for trust the medical and nursing staff.

After AF diagnosis, patients are facing many challenges and management is crucial in five domains: acute management, treatment of underlying and concomitant cardiovascular conditions, stroke prevention, rate control, and rhythm control.[25] Indeed, this arrhythmia requires multidimensional management that helps patients to understand the complex AF-related issues. Interestingly, patients have to learn medical terminology, to enhance self-care skills, to interpret symptoms and to adhere to medications such as antiarrhythmics and anticoagulants.[9,25,26,27]

Regarding the use of anticoagulant treatment, the main difficulty is lack of information and understanding[28] while one in four patients to be unable to explain AF.[27] Notably, lack of information is related with distrust of health professionals' options and uncertainties about the disease.[11] Given that limited knowledge is associated with adverse consequences, the need for on-going support to patients is crucial to achieve treatment adherence.[29]

Trust based on effective communication is the cornerstone of participatory decision making. However, trust is not always dominant in clinical settings while perspectives of health professionals and AF patients may differ.[30,31] A trusting relationship permits better understanding of patients' problems preferences, beliefs, attitudes and emotional challenges. More in detail, mutual communication helps health professionals to summarize the problems in a clear manner, to present treatment options with clarity and enables patients to shape their own medical opinion. As a consequence, patients' autonomy is guaranteed and they actively participate in the decision-making process [30]

With respect to level of information, results showed that participants who reported to be little or not informed about AF considered of higher significance the need for support, for information, for trust medical and nursing staff and for communication with other patients and family. Indeed, AF patients need to acquire knowledge through supportive communication and build up confidence in order to be effectively involved in treatment.[32] The model of care is a "two-way exchange of information" between health professionals and patients.[30] Information should be provided according to patients' readiness to learn, cognitive abilities, learning style and beliefs about the cause, consequences, controllability, duration of symptoms and diagnosis of AF.[2]

From the patients' perspective, the amount of provided information is insufficient and they claim to need elaborate information in regard to treatment including anticoagulation use and dose adjustments. Assessment of gaps knowledge is important when planning educational interventions to facilitate implementation of AF guidelines.[32-34] Significant concerns are raised about constant reassessment of patients' level of information according to disease progression.[11] Equally important is evaluation of patients' personality since unnecessary information may be a source of stress or detailed information may be more beneficial in patients who wish to monitor closely the disease progress.[11]

Last but not least, depressed patients considered all six needs significant. Clinically, this information is helpful when providing care tailored to patients' needs. To the best of our knowledge, data exploring needs of AF patients' who experience anxiety/depression is diminished.

Interestingly, AF patients who report not to maintain very good relations with nursing staff are more likely to have high levels of anxiety and depression while those who are not informed about their health state have 3.77 times higher chances to experience high levels of depression.[2]

It should be stressed that health professionals put emphasis on psychological and pharmacological treatment while limited attention is paid on the care needs that accompany depression. Possibly, they fail to recognize this psychological distress either because they perceive it as a normal reaction to the stressful AF or they have no education on its' typical and atypical symptoms. [10,11,17] Apart from AF clinical course, health professionals ought to explore both patients' needs and psychological distress. Anxiety and depression along with unmet care needs have a detrimental effect on treatment motivation and on quality of life. Moreover, depression is a significant predictor of an increase in both met and unmet care needs.[35]

Nowadays, the global trend is to provide patient centered care. A well-educated and competent clinician is the essential link in the chain of AF management.[36] Healthcare professionals who understand these concepts may also apply them while managing depressed AF patients.

***Limitations of the study***

This study has some limitations. Convenience sampling is one of the limitations since this method is not representative of all population with AF living in Greece, thus limiting the generalizability of results. Other limitations are related to the study design which was cross-sectional and not longitudinal and therefore does not permit exploring causal relation between patients' needs and anxiety/depression. The sample size was relatively small, although many significant associations were observed. Moreover, there was no next measurement in time that would allow evaluation of possible changes in all dimensions under assessment (needs and anxiety/depression).

The strengths of the study include the use of a wide spread instrument (HADS), that permit comparisons among populations across the world.

***Conclusions***

Understanding the association between patients' needs and anxiety/depression should prompt health professionals to provide beneficial care for AF patients. The results offer support to ideas for educational interventions that improve clinicians' ability to manage AF more efficiently. Furthermore, assessment of anxiety and depression is essential immediately after hospital admission and should not be undermined at discharge. The findings of the present study may stimulate and guide future research efforts.

## References


1. Dilaveris PE, Kennedy HL. Silent atrial fibrillation: epidemiology, diagnosis, and clinical impact. *Clin Cardiol* 2017, 40:413-418, doi: 10.1002/clc.22667.
2. Polikandrioti M, Koutelekos I, Vasilopoulos G, Gerogianni G, Gourni M, Zyga S, Panoutsopoulos G. Anxiety and Depression in Patients with Permanent Atrial Fibrillation: Prevalence and Associated Factors. *Cardiol Res Pract* 2018, 2018:7408129, doi: 10.1155/2018/7408129
3. Morillo CA, Banerjee A, Perel P, Wood D, Jouven X. Atrial fibrillation: the current epidemic. *J Geriatr Cardiol* 2017, 14:195-203.,doi: 10.11909/j.issn.1671-5411.2017.03.011.
4. Zulkifly H, Lip GYH, Lane DA. Epidemiology of atrial fibrillation. *Int J Clin Pract* 2018, 72:e13070, doi: 10.1111/ijcp.13070
5. Bostrom JA, Saczynski JS, Hajduk A, Donahue K, Rosenthal LS, Browning C, et al. Burden of Psychosocial and Cognitive Impairment in Patients With Atrial Fibrillation. *Crit Pathw Cardiol* 2017,16:71-75,doi: 10.1097/HPC.0000000000000101
6. K Koutsaki S, Koutelekos I, Gerogianni G, Koutsaki M, Koukouzeli A, Fouka G, Polikandrioti M. Atrial Fibrillation in Hypertension: Patients' Characteristics. *Mater Sociomed* 2018, 30:4-9,doi: 10.5455/msm.2018.30.4-9
7. Freedman B, Potpara TS, Lip GY. Stroke prevention in atrial fibrillation. *Lancet* 2016, 388 (10046):806–817, doi: 10.1016/S0140-6736(16)31257-0
8. Severino P, Mariani MV, Maraone A, Piro A, Ceccacci A, Tarsitani L, et al. Triggers for Atrial Fibrillation: The Role of Anxiety. *Cardiol Res Pract* 2019, 2019:1208505,doi: 10.1155/2019/1208505
9. Patel D, Mc Conkey ND, Sohaney R, Mc Neil A, Jedrzejczyk A, Armaganijan L. A systematic review of depression and anxiety in patients with atrial fibrillation: the mind-heart link. *Cardiovasc Psychiatry Neurol* 2013, 2013:159850, doi: 10.1155/2013/159850
10. Polikandrioti M, Goudevenos J, Michalis LK, Ioannis K, Elpida G, Kostas K, Elisaf M. Correlation Between the Type of Acute Coronary Syndrome With the Needs of Hospitalized Patients. *Glob J Health Sci* 2015, 8:126-134, doi: 10.5539/gjhs.v8n7p126
11. Polikandrioti M, Goudevenos J, Michalis LK, Koutelekos IG, Georgiadi E, Karakostas C, Elisaf M. Association between characteristics of Hospitalized Heart Failure Patients With Their Needs. *Glob J Health Sci* 2015,8:95-108, doi: 10.5539/gjhs.v8n6p95
12. Epstein RM, Street RL Jr. The values and value of patient-centered care. *Ann Fam Med* 2011, 9:100-103, doi: 10.1370/afm.1239.
13. Polikandrioti M. Needs of depressed patients with coronary artery disease *Health Science Journal* 2011, 5:241-242
14. Camm AJ, Kirchhof P, Lip GY, Schotten U, Savelieva I, Ernst S, et al. Guidelines for the management of atrial fibrillation: the task force for the management of atrial fibrillation of the European society of cardiology (ESC) *Europace* 2010, 12:1360–1420,doi: 10.1093/europace/euq350
15. Zigmond AS, Snaith RP. The Hospital Anxiety And Depression Scale. *Acta Psychiatr Scand* 1983, 67:361-370, doi: 10.1111/j.1600-0447.1983.tb09716.x
16. Michopoulos I, Douzenis A, Kalkavoura C, Christodoulou C, Michalopoulou P, Kalemi G, et al. Hospital Anxiety and Depression Scale (HADs): validation in a Greek general hospital sample. *Ann Gen Psychiatry* 2008, 7:4, doi.org/10.1186/1744-859X-7-4
17. Polikandrioti M, Goudevenos I, Michalis L, Nikolaou V, Dilanas C, Olympios C, et al. Validation and reliability analysis of the questionnaire "Needs of hospitalized patients with coronary artery disease". *Health Science Journal* 2011, 5(2):137–148
18. Thrall G, Lip GY, Carroll D, Lane D. Depression, anxiety, and quality of life in patients with atrial fibrillation. *Chest* 2007,132:1259–1264, doi: 10.1378/chest.07-0036.

19. Schnabel RB, Michal M, Wilde S, Wiltink J, Wild PS, Sinning CR, et al. Depression in atrial fibrillation in the general population. *PLoS One* 2013, 8:e79109, doi:10.1371/journal.pone.0079109
20. Rewiuk K, Wizner B, Klich-Rączka A, Więcek A, Mossakowska M, Chudek J, et al. Atrial fibrillation independently linked with depression in community-dwelling older population. Results from the nationwide PolSenior project. *Exp Gerontol* 2018, 112:88-91,doi: 10.1016/j.exger.2018.09.006
21. Fenger-Grøn M, Vestergaard M, Pedersen HS, Frost L, Parner ET, Ribe AR, Davydow DS. Depression, antidepressants, and the risk of non-valvular atrial fibrillation: A nationwide Danish matched cohort study. *Eur J Prev Cardiol* 2019, 26:187-195, doi:10.1177/2047487318811184
22. Altiok M, Yilmaz M, Rencüsoğullari I. Living with Atrial Fibrillation: An Analysis of Patients' Perspectives *Asian Nursing Research* 2015, 9:305-311, doi:10.1016/j.anr.2015.10.001
23. Baumgartner C, Fan D, Fang MC, Singer DE, Witt DM, Schmelzer JR, et al. Anxiety, Depression, and Adverse Clinical Outcomes in Patients With Atrial Fibrillation Starting Warfarin: Cardiovascular Research Network WAVE Study. *J Am Heart Assoc 2018,* 7:e007814, doi: 10.1161/JAHA.117.007814
24. Dąbrowski R, Smolis-Bąk E, Kowalik I, Kazimierska B, Wójcicka M, Szwed H. Quality of life and depression in patients with different patterns of atrial fibrillation. *Kardiologia Polska* 2010, 68:1133–1139, PMID: 20967710
25. Kirchhof P. The future of atrial fibrillation management: integrated care and stratified therapy. *Lancet* 2017, 390(10105):1873-1887, doi: 10.1016/S0140-6736(17)31072-3.
26. Aronis KN, Edgar B, Lin W, Martins MAP, Paasche-Orlow MK, Magnani JW. Health Literacy and Atrial Fibrillation: Relevance and Future Directions for Patient-centered Care. *Eur Cardiol* 2017,12:52-57, doi: 10.15420/ecr.2017:2:2
27. Aliot E, Breithardt G, Brugada J, Camm J, Lip GY, Vardas PE, Wagner M. An international survey of physician and patient understanding, perception, and attitudesto atrial fibrillation and its contribution to cardiovascular disease morbidity and mortality. *Europace* 2010,12:626–633, doi: 10.1093/europace/euq109
28. Mas Dalmau G, Sant Arderiu E, Enfedaque Montes MB, Solà I, Pequeño Saco S, Alonso Coello P. Patients' and physicians' perceptions and attitudes about oral anticoagulation and atrial fibrillation: a qualitative systematic review. *BMC Fam Pract* 2017, 18:3, doi: 10.1186/s12875-016-0574-0
29. Borg Xuereb C, Shaw RL, Lane DA. Patients'and health professionals' views and experienc es of atrial fibrillation and oral-anticoagulant therapy: a qualitative meta-synthesis. *Patient Educ Couns* 2012, 88:330-337, doi: 10.1016/j.pec.2012.05.011
30. Bae JM. Shared decision making: relevant concepts and facilitating strategies. *Epidemiol Health* 2017, 39:e2017048, doi: 10.4178/epih.e2017048
31. Petrocchi S, Iannello P, Lecciso F, Levante A, Antonietti A, Schulz PJ. Interpersonal trust in doctor-patient relation: Evidence from dyadic analysis and association with quality of dyadic communication. *Soc Sci Med* 2019, 235:112391, doi:10.1016/j.socscimed.2019.112391
32. Siouta E, Hellström Muhli U, Hedberg B, Broström A, Fossum B, Karlgren K. Patients' experiences of communication and involvement in decision making about atrial fibrillation treatment in consultations with nurses and physicians. *Scand J Caring Sci* 2016, 30:535-546, doi: 10.1111/scs.12276

33. Clarkesmith DE, Lip GYH, Lane DA. Patients' experiences of atrial fibrillation and non-vitamin K antagonist oral anticoagulants (NOACs), and their educational needs: A qualitative study. *Thromb Res* 2017, 53:19-27,doi: 10.1016/j.thromres.2017.03.002
34. Hendriks JM, Crijns HJ, Tieleman RG, Vrijhoef HJ. The atrial fibrillation knowledge scale: development, validation and results. *Int J Cardiol* 2013,168:1422-1428,doi: 10.1016/j.ijcard.2012.12.047
35. Clignet F, Houtjes W, van Straten A, Cuijpers P, van Meijel B. Unmet care needs, care provision and patient satisfaction in patients with a late life depression: a cross-sectional study. *Aging Ment Health* 2019, 23:491-497, doi: 10.1080/13607863.2018.1426716
36. Potpara TS, Mujovic N, Lip GYH. Meeting the unmet needs to improve management and outcomes of patients with atrial fibrillation: fitting global solutions to local settings. *Pol Arch Intern Med* 2019, 129:574-576, doi: 10.20452/pamw.14996

**Table 1**: Patients' characteristics (N=215)

| | N (%) | | |
|---|---|---|---|
| Gender (male) | 147(68.4%) | Informed about health | |
| Age | | *Very* | 111(51.6%) |
| *<50* | 27(12.6%) | *Enough* | 77(35.8%) |
| *51-60* | 43(20.0%) | *Less/Not at all* | 27(12.6%) |
| *61-70* | 70(32.6%) | Years having the disease | |
| *>70* | 75(34.9%) | *<1 year* | 97(45.1%) |
| Marital status | | *2-5 years* | 54(25.1%) |
| *Married* | 160(74.4%) | *6-10 years* | 64(29.8%) |
| *Single* | 55(25.6%) | Relations with nursing staff | |
| Educational Level | | *Very good* | 163(76.2%) |
| *Primary* | 115(53.7%) | *Good* | 36(16.8%) |
| *Secondary* | 69(32.2%) | *Moderate/Bad* | 15(7.0%) |
| *University* | 30(14.0%) | Relations with medical staff | |
| Job | | *Very good* | 156(73.2%) |
| *Employee* | 75(34.9%) | *Good* | 46(21.6%) |
| *Pensioner /Household* | 140(65.1%) | *Moderate/Bad* | 11(5.2%) |
| Place of residence | | Other disease (yes) | 94(43.9%) |
| *Attica* | 145(67.4%) | Previous hospitalization (yes) | 123(57.2%) |
| *Other* | 70(32.6%) | | |
| No of children | | | |
| *None* | 22(10.2%) | | |
| *One* | 41(19.1%) | | |
| *Two* | 101(47.0%) | | |
| *More than two* | 51(23.7%) | | |
| Days in hospital | 5 (4-6)[§] | | |

[§]*Data presented as Median (Interquartile Range)*

**Table 2:** Levels of anxiety/depression of patients (N=215)

| | **N (%)** |
|---|---|
| Anxiety (Cronbach's a=0.779) | |
| No (Score ≤8) | 110 (52.1%) |
| Yes (Score >8) | 101 (47.9%) |
| Depression (Cronbach's a=0.844) | |
| No (Score ≤8) | 148 (70.5%) |
| Yes (Score >8) | 62 (29.5%) |

**Table 3**: Descriptive data of the sub-scales assessing the significance of the needs of patients (N=215)

| **Patients' needs (range)** | **Median (IQR)** |
|---|---|
| *Need for support and guidance (9-36)* | 29 (23-32) |
| *Need to be informed from the medical and nursing staff (8-32)* | 20 (14-27) |
| *Need for communication with other patient groups, and ensurance for communication with family (6-24)* | 10 (6-14) |
| *Need for individualization of care and patient participation in patient care (6-24)* | 9 (6-12) |
| *Need to meet the emotional needs (eg, anxiety, fear, loneliness) and physical needs (such as relaxation, sleep, better conditions of treatment) (7-28)* | 9 (7-12) |
| *Need to trust the medical and nursing staff (2-8)* | 6 (5-7) |

**Table 4**: Association between patients' characteristics and their needs (N=215)

| | *Need for support and guidance* Median (IQR) | p | *Need to be informed from the medical / nursing staff* Median (IQR) | p | *Need for communication with other patient, and family* Median (IQR) | p | *Need for individualization of care and their participation* Median (IQR) | p | *Need to meet the emotional and physical needs* Median (IQR) | p | *Need to trust the medical / nursing staff* Median (IQR) | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gender** | | 0.123 | | 0.057 | | **0.028** | | 0.305 | | 0.365 | | 0.178 |
| *Male* | 29 (23-31) | | 19 (19-27) | | 10 (6-14) | | 8 (6-12) | | 8 (7-12) | | 6 (5-7) | |
| *Female* | 30 (23-33) | | 24 (19-28) | | 12(7,5-15) | | 9(6,5-12) | | 9.5 (7-13) | | 6 (5-7) | |
| **Age** | | 0.517 | | 0.485 | | 0.296 | | **0.039** | | 0.238 | | 0.985 |
| *<60* | 29,5 (23-30) | | 20 (19-27) | | 10 (7-13) | | 9 (6-12) | | 8 (7-11) | | 6 (5-7) | |
| *61-70* | 29 (23-31) | | 19 (19-27) | | 9 (6-15) | | 7 (6-10) | | 7.5 (7-12) | | 6 (5-7) | |
| *>70* | 30 (23-33) | | 20 (19-27) | | 12 (6-15) | | 10 (6-12) | | 9 (7-13) | | 6 (5-7) | |
| **Marital status** | | 0.315 | | 0.135 | | 0.245 | | 0.485 | | 0.293 | | 0.274 |
| *Married* | 29 (23-31) | | 19 (19-27) | | 10 (6-14) | | 8 (6-12) | | 8 (7-12) | | 6 (5-7) | |
| *Single* | 31 (23-33) | | 24 (19-28) | | 11 (6-15) | | 10 (6-12) | | 9 (7-14) | | 6 (5-7) | |
| **Educational Level** | | 0.511 | | 0.383 | | 0.368 | | 0.342 | | 0.869 | | 0.059 |
| *Primary* | 29 (23-31) | | 20 (19-27) | | 9 (6-14) | | 8 (6-12) | | 9 (7-13) | | 6 (5-7) | |
| *Secondary* | 29 (23-34) | | 19 (19-26) | | 12 (6-15) | | 9 (6-12) | | 9 (7-12) | | 6 (5-7) | |
| *University* | 29 (23-31) | | 20 (19-24) | | 10 (7-15) | | 10 (6-13) | | 8 (7-11) | | 6 (5-7) | |
| **Job** | | 0.577 | | 0.220 | | 0.517 | | 0.268 | | 0.965 | | 0.242 |
| *Employee* | 29 (23-33) | | 20 (19-28) | | 10 (6-15) | | 9 (6-13) | | 9 (7-12) | | 6 (5-7) | |
| *Pensioner* | 29 (23-31) | | 19 (19-26,5) | | 10 (6-14) | | 8 (6-12) | | 9 (7-13) | | 6 (5-7) | |
| **Place of residence** | | 0.934 | | 0.061 | | 0.200 | | 0.402 | | 0.351 | | 0.491 |
| *Attica* | 29 (23-31) | | 19 (19-26) | | 9 (6-15) | | 8 (6-12) | | 9 (7-12) | | 6 (5-7) | |
| *Other* | 29 (23-33) | | 24 (19-27) | | 12 (7-14) | | 9 (6-12) | | 8.5 (7-13) | | 6(5-7) | |
| **No of children** | | 0.561 | | 0.774 | | 0.182 | | **0.029** | | 0.192 | | 0.390 |
| *None* | 31 (23-33) | | 20 (19-28) | | 10.5(8-16) | | 11 (8-13) | | 11.5 (7-14) | | 6 (5-7) | |
| *One* | 29 (23-31) | | 20 (19-26) | | 9 (6-13) | | 7 (6-9) | | 8 (7-11) | | 6 (5-7) | |
| *One+* | 29 (23-32) | | 20 (19-27) | | 11 (6-15) | | 9 (6-12) | | 8.5 (7-12) | | 6 (5-7) | |
| **Other disease** | | 0.731 | | 0.530 | | 0.794 | | 0.875 | | 0.558 | | 0.897 |
| *Yes* | 29 (23-31) | | 20 (19-27) | | 11 (6-14) | | 9 (6-12) | | 9 (7-13) | | 6 (5-7) | |

| | *Need for support and guidance* Median (IQR) | p | *Need to be informed from the medical / nursing staff* Median (IQR) | p | *Need for communication with other patient, and family* Median (IQR) | p | *Need for individualization of care and their participation* Median (IQR) | p | *Need to meet the emotional and physical needs* Median (IQR) | p | *Need to trust the medical / nursing staff* Median (IQR) | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *No* | 29 (23-32,5) | | 19 (19-27) | | 10 (6-15) | | 8 (6-12) | | 8.5 (7-11) | | 6 (5-7) | |
| **Previous hospitalization** | | 0.920 | | 0.157 | | 0.601 | | 0.770 | | 0.821 | | 0.104 |

**Table 5**: Association between anxiety/depression and patient's needs (N=215)

| | *Need for support and guidance* Median (IQR) | p | *Need to be informed from the medical / nursing staff* Median (IQR) | p | *Need for communication with other patient, and family* Median (IQR) | p | *Need for individualization of care and their participation* Median (IQR) | p | *Need to meet the emotional and physical needs* Median (IQR) | p | *Need to trust the medical / nursing staff* Median (IQR) | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Anxiety** | | **0.002** | | **0.002** | | **0.047** | | **0.048** | | 0.129 | | 0.084 |
| No (Score ≤8) | 27 (23-31) | | 19 (19-26) | | 9 (6-14) | | 8 (6-11) | | 8 (7-11) | | 6 (5-7) | |
| Yes (Score >8) | 28 (23-33) | | 23 (19-27) | | 12 (6-15) | | 9 (6-12) | | 9 (7-13) | | 6 (5-7) | |
| **Depression** | | **0.001** | | **0.001** | | **0.001** | | **0.001** | | **0.001** | | **0.001** |
| No (Score ≤8) | 23 (23-31) | | 19 (19-24) | | 8 (6-13.5) | | 8 (6-11) | | 8 (7-11) | | 6 (5-7) | |
| Yes (Score >8) | 31 (30-34) | | 26 (19-29) | | 13 (10-16) | | 11 (8-15) | | 11 (8-14) | | 7 (5-8) | |

**Table 6**: Effect of anxiety/depression and characteristics on patient's needs (N=215)

| | *Need for support and guidance* | | *Need to be informed from the medical / nursing staff* | | *Need for communication with other patient, and family* | | *Need for individualization of care and their participation* | | *Need to meet the emotional and physical needs* | | *Need to trust the medical / nursing staff* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **β coef (95% CI)** | **p-value** | **β coef (95% CI)** | **p-value** | **β coef (95% CI)** | **p-value** | **β coef (95% CI)** | **p-value** | **β coef (95% CI)** | **p-value** | **β coef (95% CI)** | **p-value** |
| **Gender** | | | | | | | | | | | | |
| *Male* | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | |
| *Female* | 0.52 (-0.74, 1.79) | 0.415 | 0.54 (-0.40, 1.47) | 0.259 | 0.87 (-0.35, 2.09) | 0.160 | 0.36 (-0.69, 1.40) | 0.502 | 0.38 (-0.62, 1.37) | 0.455 | 0.07 (-0.12, 0.27) | 0.458 |
| **Age (years)** | | | | | | | | | | | | |
| *<60* | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | |
| *61-70* | -0.18 (-1.62, 1.26) | 0.809 | -0.17 (-1.24, 0.90) | 0.748 | -0.22 (-1.60, 1.16) | 0.752 | -0.86 (-2.10, 0.38) | 0.173 | 0.15 (-0.99, 1.29) | 0.793 | -0.04 (-0.27, 0.18) | 0.703 |
| *>70* | 0.69 (-0.80, 2.17) | 0.363 | 0.15 (-0.95, 1.26) | 0.785 | 0.43 (-1.00, 1.85) | 0.558 | 0.25 (-0.99, 1.49) | 0.694 | 0.51 (-0.65, 1.67) | 0.388 | -0.03 (-0.26, 0.21) | 0.822 |
| **No of children** | | | | | | | | | | | | |
| *None* | - | | - | | - | | Ref.Cat | | - | | - | |
| *One* | - | | - | | - | | -1.54 (-3.41, 0.33) | 0.105 | - | | - | |
| *One+* | - | | - | | - | | -0.46 (-2.11, 1.20) | 0.588 | - | | - | |
| **Informed** | | | | | | | | | | | | |
| *Very* | Ref.Cat | | Ref.Cat | | Ref.Cat | | - | | - | | Ref.Cat | |
| *Enough* | 0.43 (-0.85, 1.71) | 0.507 | 0.60 (-0.34, 1.55) | 0.210 | -0.01 (-1.23, 1.22) | 0.992 | - | | - | | 0.14 (-0.06, 0.34) | 0.157 |
| *Less/Not at all* | 0.74 (-1.11, 2.59) | 0.433 | 1.98 (0.62, 3.35) | **0.005** | 1.81 (0.04, 3.59) | **0.046** | - | | - | | 0.33 (0.04, 0.62) | **0.025** |
| **Other disease** | | | | | | | | | | | | |
| *Yes* | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | |
| *No* | 0.82 (-0.38, 2.02) | 0.182 | 0.06 (-0.84, 0.95) | 0.903 | 0.30 (-0.85, 1.46) | 0.606 | 0.29 (-0.72, 1.30) | 0.569 | 0.10 (-0.85, 1.05) | 0.837 | -0.01 (-0.19, 0.18) | 0.948 |
| **Anxiety** | | | | | | | | | | | | |
| *No* | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | - | | - | |
| *Yes* | 0.25 (-1.02, 1.52) | 0.697 | 0.42 (-0.53, 1.36) | 0.384 | 0.25 (-0.97, 1.47) | 0.688 | 0.11 (-0.95, 1.17) | 0.835 | - | | - | |
| **Depression** | | | | | | | | | | | | |
| *No* | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | | Ref.Cat | |
| *Yes* | 3.12 (1.70, 4.53) | **0.001** | 2.30 (1.26, 3.34) | **0.001** | 2.74 (1.38, 4.10) | **0.001** | 2.67 (1.51, 3.82) | **0.001** | 1.85 (0.75, 2.95) | **0.001** | 0.30 (0.08, 0.52) | **0.008** |

*Ref.Cat: Reference Category CI: Confidence Interval*

## ΕΡΕΥΝΗΤΙΚΗ ΕΡΓΑΣΙΑ

# Κολπική μαρμαρυγή: Η επίπτωση του άγχους και της κατάθλιψης στις ανάγκες ασθενών

**Μαρία Πολυκανδριώτη**
*Τμήμα Νοσηλευτικής, Πανεπιστήμιο Δυτικής Αττικής*

**ΙΣΤΟΡΙΚΟ ΑΡΘΡΟΥ:** Παραλήφθηκε 11 Ιουλίου 2020 / Αναθεωρήθηκε 12 Σεπτεμβρίου 2020 / Δημοσιεύθηκε Διαδικτυακά 26 Μαρτίου 2021

----------**ΠΕΡΙΛΗΨΗ**----------

Η κολπική μαρμαρυγή (ΚΜ) αποτελεί συχνή καρδιακή αρρυθμία, που αναμένεται να λάβει ανησυχητικές διαστάσεις κυρίως λόγω της γήρανσης του πληθυσμού. Σκοπός της μελέτης ήταν η διερεύνηση του βαθμού σημαντικότητας των αναγκών των ασθενών με ΚΜ και των συσχετιζόμενων παραγόντων όπως επίσης της επίπτωσης του άγχους και της κατάθλιψης σε αυτές τις ανάγκες. Το δείγμα της μελέτης αποτέλεσαν 215 νοσηλευόμενοι ασθενείς με ΚΜ. Τα δεδομένα συλλέχθηκαν με τη συμπλήρωση ενός ερωτηματολογίου το οποίο, εκτός από τα χαρακτηριστικά των ασθενών, περιλάμβανε την κλίμακα άγχους και κατάθλιψης σε γενικό νοσοκομείο (HADS) και το ερωτηματολόγιο "Ανάγκες νοσηλευομένων ασθενών με στεφανιαία νόσο", το οποίο αξιολογεί τις εξής έξι κατηγορίες αναγκών: α) ανάγκη για στήριξη και καθοδήγηση, β) ανάγκη για ενημέρωση από το ιατρονοσηλευτικό προσωπικό, γ) ανάγκη για επικοινωνία με άλλες ομάδες ασθενών και την οικογένεια, δ) ανάγκη για εξατομίκευση της φροντίδας και συμμετοχή του ασθενούς στη φροντίδα, ε) ανάγκη για κάλυψη των συναισθηματικών αναγκών και φυσικών αναγκών και στ) ανάγκη να εμπιστεύονται το ιατρικό και νοσηλευτικό προσωπικό. Το επίπεδο της στατιστικής σημαντικότητας ετέθη στο p<0.05. Από τους 215 συμμετέχοντες, το 68.4% ήταν άνδρες και το 67.5% ήταν> 60 ετών. Επιπλέον, το 47.5% του δείγματος βίωνε άγχος και το 29.5% κατάθλιψη. Οι ασθενείς ανέφεραν ως σημαντικότερη την ανάγκη στήριξης, ενημέρωσης και εμπιστοσύνης από ιατρικό και νοσηλευτικό προσωπικό (διάμεσος, 29, 20 και 6, αντίστοιχα). Το άγχος και η κατάθλιψη συσχετίστηκαν στατιστικά σημαντικά με όλες τις ανάγκες των ασθενών (p<0.05) εκτός από την ανάγκη κάλυψης των συναισθηματικών και σωματικών αναγκών και την ανάγκη εμπιστοσύνης, οι οποίες δεν συσχετίστηκαν με το άγχος. Όσον αφορά τις ανάγκες των ασθενών, όσοι δήλωσαν λίγοι ή καθόλου ενημερωμένοι για την ασθένειά τους ανέφεραν ως σημαντικότερη την ανάγκη στήριξης και καθοδήγησης (p=0.030), την ανάγκη ενημέρωσης και την ανάγκη εμπιστοσύνης από το ιατρικό και νοσηλευτικό προσωπικό (p=0.001 και p=0.012, αντίστοιχα) και την ανάγκη επικοινωνίας με άλλους ασθενείς και την οικογένεια (p=0.007). Η ανάγκη εξατομίκευσης της φροντίδας και συμμετοχής σε αυτή αξιολογήθηκε ως σημαντικότερη από τους ασθενείς ηλικίας > 70 ετών και εκείνους που δεν είχαν παιδιά (p=0.039 και p=0.029, αντίστοιχα), ενώ η ανάγκη επικοινωνίας με άλλους ασθενείς και την οικογένεια αξιολογήθηκε ως σημαντικότερη από τις γυναίκες (p=0.028). Τα ευρήματα υπογραμμίζουν τη σημασία της παροχής φροντίδας προσαρμοσμένης στις ανάγκες των ασθενών με ΚΜ που βιώνουν άγχος και κατάθλιψη.

**ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ**: Άγχος, κατάθλιψη, ανάγκες ασθενών, κολπική μαρμαρυγή

**Επιμελητής συγγραφέας:** Μαρία Πολυκανδριώτη, Τμήμα Νοσηλευτικής, Πανεπιστήμιο Δυτικής Αττικής, Αγίου Σπυρίδωνος 28, Αιγάλεω, 12243, Αθήμα. E-mail: mpolik2006@yahoo.com