

Review



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On: A competition for an academic position "Associate Professor" in the specialty "Healthcare Management" announced for the needs of "Department of Midwifery" at Medical University of Plovdiv in SG issue 60/07.07.2020.

The only candidate in the competition is Milena Gancheva Sandeva, Chief Asst. Prof. in "Department of Midwifery" at Medical University of Plovdiv

I. **Applicant Career Profile Analysis**

Milena Sandeva has a degree in "Midwifery" from the Medical College at Medical University of Plovdiv. In 2011 she acquired a Bachelor's degree and then a Master's degree at MU of Plovdiv in "Healthcare Management". In 2017 she obtained a specialization in "Public Healthcare". Following a successful defense of a dissertation in 2019 she obtained an educational and scientific degree "Doctor of Philosophy" (PhD) in the scientific specialty "Healthcare Management". The professional qualification and the consecutive acquisition of the educational degrees is a proof for the professional development of M.Sandeva.

The candidate is a competent lecturer aiming at continuous development and improvement. She has passed 12 courses in the field of midwifery practice and teaching in a simulation environment. She participated in 4 educational seminars – electronic training, work with Scopus. She participated systematically in 22 educational forums and trainings organized by the Bulgarian Association and Specialists in Healthcare.

Her professional career began as a midwife in "St. George" University hospital. She has a 12-year experience in the field of midwifery care, holding managerial positions during the time. In 2015 after a competition she was appointed an assistant professor at the Department of Midwifery care at the Faculty of Public Health, Medical University of Plovdiv and since 2017 she has held a part-time post at the Medical Simulation Training Centre at MU of Plovdiv. Following a successful competition M.Sandeva has been appointed a chief assistant professor at the two divisions since 2019.

She is a member of the Bulgarian Scientific Society of Public Health, Bulgarian Society of Obstetrics and Gynecology, European public health association. Her command of English and Russian is at a good level.

II. General description of the submitted materials for the competition

The candidate supplied all the necessary documents for holding a scientific degree "Associate Professor" in compliance with the Act for Development of the Academic Staff in the Republic of Bulgaria, the Rules and Regulations for its application and the Rules and Regulations for the Development of the Academic Staff at MU of Plovdiv. The materials for the competition supply all the necessary information for performing a quantitative and a qualitative assessment of the overall academic development of the candidate. The necessary materials have been supplied. A declaration for the originality and authenticity of her scientific works was submitted.

III. Assessment of the applicant's academic work and overall academic development

In the materials supplied by the candidate for meeting the compulsory scientific criteria a total of 19 titles are included: a thesis, an individual monograph; 11 publications in refereed Bulgarian and international journals; 6 in non-refereed Bulgarian journals.

4 scientific publications were not refereed since they were presented in relation to the defense of the PhD Thesis. 13 scientific publications were refereed. The articles in which the candidate is an individual or first author are 8 (61.5%).

The publications in Bulgaria are in prestigious scientific journals such as "Folia Medica", "Obstetrics and Gynecology" and "General Medicine".

M. Sandeva participates as a co-author in one textbook.

The scientific activity of the candidate also includes participation in 2 projects- one national and one educational.

The chief research areas of interest of M.Sandeva can generally be systemized as follows:

- **Medico-social aspects of pre-term pregnancy (PTP)**- a chief area of development in the work of M.Sandeva. Her PhD thesis is developed and

defended within the framework of this area. This is the topic of the individual monograph as well.

- The trend for a high rate of preterm pregnancies in our country is confirmed despite the advance in perinatal care. The basic determinants of PTP were studied.

✓ Reproductive history of the mother- the number of pregnancies, interval between pregnancies, presence of previous preterm pregnancy, abortions, presence of cervico-vaginal infection, concomitant diseases.

✓ Social status- education, profession, financial status, family status, housing conditions, domestic violence.

✓ Behavioural factors on the side of the mother- way of life, risk factors, prenatal stress.

- The morbidity during the neonatal period of preterm infants is analyzed, the comorbidity and presence of multiple complications and concomitant pathology is recorded. The dependence between the incidence of Hyaline Membrane Disease in preterm children from gestation age and the age of the mother was established.

1. Medical and socially significant problems in obstetric and gynecological practice

The following leading contributions stand out:

- The prolonged trend for reduction in the birth rate in Bulgaria is confirmed. Increase in the adolescent and delayed pregnancy.
- The application of hydrotherapy during delivery was studied- a significant reduction in the period of dilation in women who chose water birth, a significantly reduced need of analgesia in this type of birth, no bleeding in the placental and early placental period was observed. A favourable effect on the water on the mother and foetus during birth was established.
- It was established that Pregnyl administration in women with spontaneous abortions and polycystic ovaries influences favourably the pregnancy

outcome. Pregnyl substitutes the individual's hormone and assists in the achievement of full-term pregnancy.

- The current status of infertility and abortions in Bulgaria was studied- despite the pronounced trend for reduction in the number of abortions, they continue to constitute almost half of the deliveries during a year. A trend for an increase in the abortions during adolescence was established. The most commonly used means and methods of contraception are the condom, contraceptive pills and the withdrawal method.
- The impact of reproductive factors for the development of non-small cell lung cancer (NSCLC) was analyzed. The role of menstrual factors in pulmonary carcinogenesis was studied. No relation between menarche age and risk of NSCLC development was established. It was proven that menopause under 50 years of age is a risk factor for the development of pulmonary carcinoma.

3. Various

3.1. Effectiveness and advantages of simulation training in medicine- a new course in the work of M.Sandeva which would assist in developing the methods of training in a simulation environment.

For the first time in Bulgaria the effectiveness of simulation training was studied. A significant improvement in the knowledge, skills and attitudes of trainees through simulation was proven which influences considerably the self-evaluation and confidence in manipulation performance. This approach leads to higher quality of medical activity ensuring less mistakes and resource wastage.

3.2. The specific 'pack' of antioxidant indicators in patients with acute alcohol intoxication- SOD and GPx, basic elements from the physiological antioxidant system and considerable increase in homocysteine. Homocysteinemia is detected in individuals with chronic intake of toxic factors such as alcohol and heroin.

IV. Evaluation of the monographic work or equivalent publications.

The candidate presented a single monograph which meets the criteria of NCID to be qualified as such. It is related to the subject matter which M.Sandeva develops- determinants of pre-term pregnancy in Bulgaria.

V.Reflection (citation) of the candidate's publications.

The positive citations are 8 in number (2 from Bulgarian and 6 from foreign authors in prestigious international journals). One auto-citation was not refereed. I recommend that she broadens the scope of the journals in which she publishes articles in order for her research results become popular and she could increase the number of citations.

VI. Comprehensive qualitative evaluation of the educational and teaching activity

M.Sandeva has a five-year teaching experience as an assistant professor. She participates actively in teaching students from "Midwifery" specialty and is engaged actively in the practical seminars, traineeship and reading lectures. As a chief assistant in the Medical Simulation Training Centre she teaches practical courses to students from the specialty "Medicine", interns, and residents. She also participates in practical courses part of PGT for the specialties "Nursing care" and "Midwifery care".

The candidate is a co-author in educational materials and tests for current assessment.

On average, for an academic year M. Sandeva teaches 591 auditorium hours and 87 extramural hours.

VII. Critical notes and recommendations

I have no critical notes for the research and teaching activity of the candidate.

VIII. Overall evaluation of the applicant's compliance with the mandatory conditions and the mandatory quantitative criteria and scientometric indicators.

Groups of Indicators	Contens	Number of required points	Milena Sandeva (Number of points)
A	Indicator 1	50	50
Б	Indicator 2	-	
B	Sum of Indicators from 3 to 4	100	100
Г	Sum of Indicators from 5 to 9	200	282.5
Д	Sum of Indicators from 10 to 12	50	70
E	Sum of Indicators from 13 to 15	-	102.9

The amount of the presented scientific materials complies with the requirements for appointment of the academic position "Associate professor" according to the Rules and Regulations for the Development of the Academic Staff of Republic of Bulgaria.

IX. Conclusion

Milena Sandeva is a competent lecturer, participating actively in training students and residents from Medical University of Plovdiv. On the basis of the scientific papers, their contribution and overall evaluation of the educational activity I propose that the honourable Scientific Jury to select chief asst. Milena Sandeva, PhD for the academic position "Associate Professor" in the scientific specialty "Healthcare Management" at the department of "Midwifery care", Faculty of Public Health, Medical University of Plovdiv.

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Plovdiv

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/ Prof. Dr. M. Semerdjieva, MD, PhD/