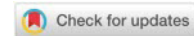


PREREQUISITES FOR EFFECTIVE COMMUNICATION IN SEASONAL INFLUENZA VACCINATION- A STUDY OF GENERAL PRACTITIONERS IN BULGARIA

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Abstract: This study investigates the prerequisites and barriers to effective communication regarding seasonal influenza vaccination by examining the perspectives of general practitioners (GPs) in Bulgaria. GPs play a crucial role in providing primary healthcare services, including health information, promotion of health, disease prevention, and vaccination programs. However, they face significant challenges related to patient trust in social media and internet sources, patients' tendency to neglect their health, and administrative burdens that can hinder their ability to engage in preventive measures. The survey involved 368 GPs who completed an anonymous questionnaire assessing various aspects of their work and relationships with patients. Results indicate that most GPs believe patients heavily rely on potentially misleading information from social media, which complicates efforts to promote vaccinations. Additionally, many patients tend to neglect their health, making them less receptive to health promotion campaigns. Furthermore, GPs often feel overwhelmed by administrative tasks, limiting their capacity to participate in additional preventive programs. Despite these challenges, GPs recognize the importance of communication skills, with 94% considering them as vital as diagnostic and treatment skills. This highlights the need for ongoing training and development of communication skills to improve interactions with patients and enhance the effectiveness of vaccination programs. In conclusion, addressing misinformation, promoting patient responsibility, and reducing administrative burdens are essential steps towards improving communication and increasing vaccination rates among the Bulgarian population.

Keywords: General Practitioners (GPs); communication plan; flu vaccination; patient trust; administrative burden

Field: Medical Sciences

1. INTRODUCTION

The general practitioner (GP) is the leading figure in primary care in Bulgaria. The characteristics and functions of the GP are described in detail in the Medical Standard "General Medicine" (according to Regulation No. 2 of December 23, 2020 of the Ministry of Health), the Law on Medical Institutions and the National Framework Agreement (Ministry of Health, 2020; Law on Medical Institutions, 1999; National Health Insurance Fund & Bulgarian Medical Association, 2023). These documents determine the requirements for competence, the scope of activities and access to medical care.

Along with the diagnostic and treatment activities regulated in the specified documents, the GP also performs health information activities; health promotion, disease prevention and patient monitoring program (dispensarization) (Kirov, L. & Ivanov, G., 2012).

The role as a family doctor requires him/her to be familiar with the social history of health and illness of the people on his patient list, to have well-developed communication and motivational skills in order to adequately respond to the growing health needs and expectations of the population.

During the three-year training in the specialty "General Medicine", doctors consolidate the practices of the patient-centered approach, as well as management skills for medical practice management. The Code of Professional Ethics of Doctors in Bulgaria defines the moral and behavioral characteristics of physicians, such as professional responsibility, humanity, tact and confidentiality, necessary for building trust and an effective "practitioner- patient" relationship (Bulgarian Medical Association, 2000; Garov, S., 2021; Shopnikolova, T., Yanakieva, A., & Vodenicharova, A., 2021).

Vaccines have been among the most significant public health achievements of the past two centuries. Influenza vaccines provide between 70% and 90% protection against clinical disease in healthy adults. Other benefits of seasonal influenza vaccination include helping to maintain health systems during influenza epidemics and pandemics, and providing better preparedness and response in the event of a pandemic (Penchev, D., Zlatanova-Velikova, R., Zlatanova, T. et al., 2024).

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The aim of this paper is to study the prerequisites and barriers for effective communication in seasonal influenza vaccination by examining the opinion of GPs on important aspects of their daily work and relationships with patients.

2. MATERIALS AND METHODS

The presented data are part of a larger scientific study aimed at researching the communication skills of GPs in promotion of recommended seasonal influenza vaccines in Bulgaria.

The following methods were used:

- A documentary method for researching and analyzing the literature available on communication strategies in optional immunizations;
- Questionnaire method: Anonymous direct individual questionnaire among general practitioners in Bulgaria. Respondents were recruited through a personal visit to the outpatient clinic or during two national scientific forums;
- Statistical methods: The specialized statistical package SPSS (Statistical Package for the Social Sciences) version 20 was used to process the data from the study.

The survey was conducted between May 2025 and October 2025. A total of 368 general practitioners were enrolled. An original questionnaire was developed for the purposes of the study.

3. RESULTS AND DISCUSSION

The study involved 368 respondents - doctors with a specialty in "General Medicine". The average age of the respondents in the sample is 57.92 years (min=24.0; max=79.0; SD= 9.67).

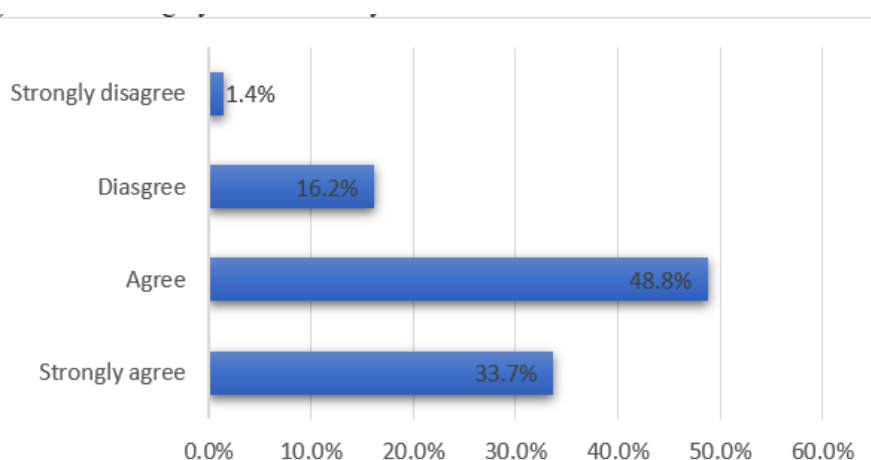
Women significantly predominate (68.2%). According to data from the National Statistical Institute and the Bulgarian Medical Union, by the beginning of 2024, female doctors in primary outpatient care predominate, often exceeding 60-70% of the total number of general practitioners in a number of regions. The gender distribution in the sample corresponds to these national data.

In terms of family status, the largest share of respondents are married - 67.0%; followed by these in a relationship (12.3%), the divorced (8.8%), the single (6%) and the widowed (6%).

Outpatient clinics in a large city (regional city) predominate - 51.8%, followed by practices in a small town (29.6%). 14.2% of respondents reported that their outpatient clinic is located in the capital and 4.4% - in a village.

The average number of patients in the patient list of a GP is 1835.18 people (SD = 912.87), with the average number of patients aged 65 and over, i.e. those subject to immunization under the "National Program for Improving Vaccine Prevention of Seasonal Influenza and Pneumococcal Infections in Persons Aged 65 and Over 2023-2026" being 521.4 (SD = 401.82). A huge share of respondents - 85.2% indicate work experience as a GP over 20 years, and another 7.7% - over 10 years.

Fig. 1. Patients highly trust what they read on social media and other internet sources

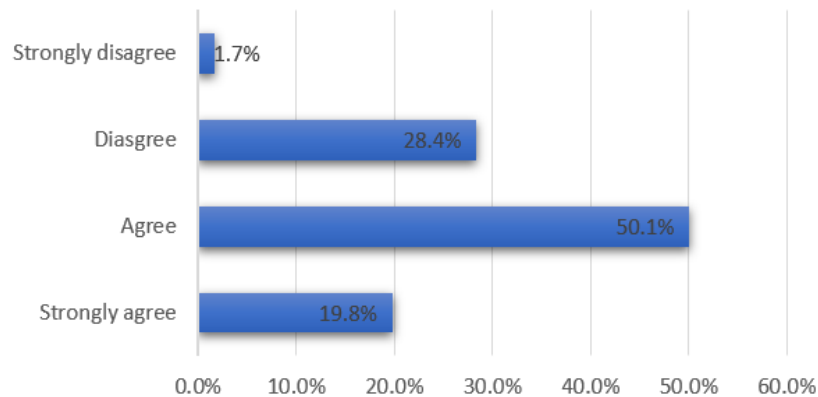


Source: Authors' research

82.5% of respondents believe that patients highly trust what they read on social media and other internet sources. Free access to information, sometimes misleading or completely false, makes it difficult for doctors to conduct information campaigns regarding the benefits of mandatory and recommended vaccinations. The lack of control over information on the internet is a prerequisite for the spread of disinformation and bad practices among people - distrust, fear and refusal of vaccination.

A significant percentage of respondents answered the statement "Most people neglect their health" positively - 19.8% completely agree and 50.1% - agree. 28.4% disagree and only 1.7% strongly disagree with this statement. (Fig. 2) Patients who tend to neglect their health are less responsive to health promotion and disease prevention campaigns, long-term follow-up, which leads to a deterioration in their chronic conditions and quality of life. (Dzugiarska, M., Zlatanova, T., Popov et al., 2023; Dzinsov, K., Georgieva, E., Traykov, et. al., 2023)

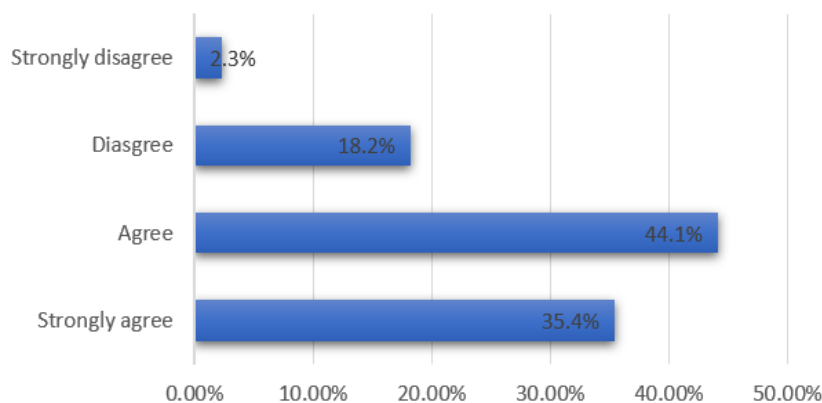
Fig. 2: Most people neglect their health



Source: Authors' research

A large share of the participants in the study (79.5%) are of the opinion that patients have too many rights (Fig. 3). The autonomous model of "doctor-patient" relationships assumes that the patient participates in making decisions regarding his or her own health, after receiving sufficient and accessible information. Optional immunizations are provided at the patient's request for a fee or are free for some groups of the population. Patient awareness is key to making informed choices and the right to information is central to the concept of informed consent (Shtereva-Nikolova, N., 2012).

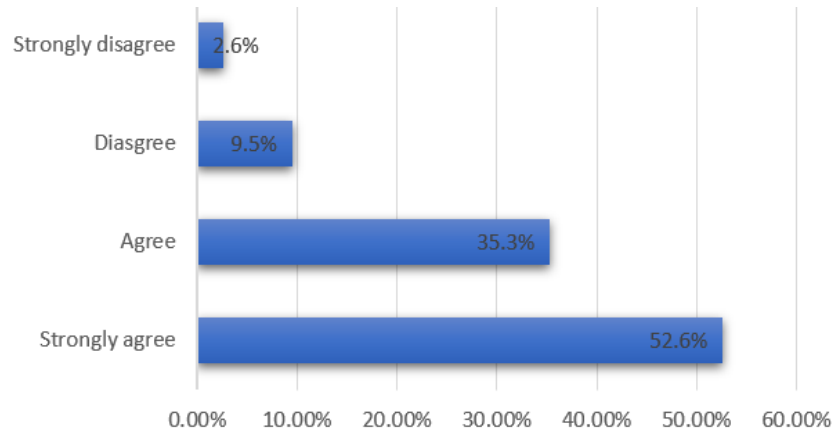
Fig. 3. Patients have too many rights



Source: Authors' research

The following questions concern the routine work of GPs. In addition to their duties towards patients, GPs also have the responsibility to manage their practice (Zlatanova, T. & Zlatanova-Velikova, R., 2012). To the statement "My administrative work is more than my medical work", 52.6% answered "strongly agree" and 35.3% "agree". (Fig. 4) Some authors point out the possibility that GPs do not engage in additional preventive programs precisely because of the administrative and organizational burden associated with implementation, rather than because of reluctance to carry out preventive measures.

Fig. 4: My administrative work is more than my medical work

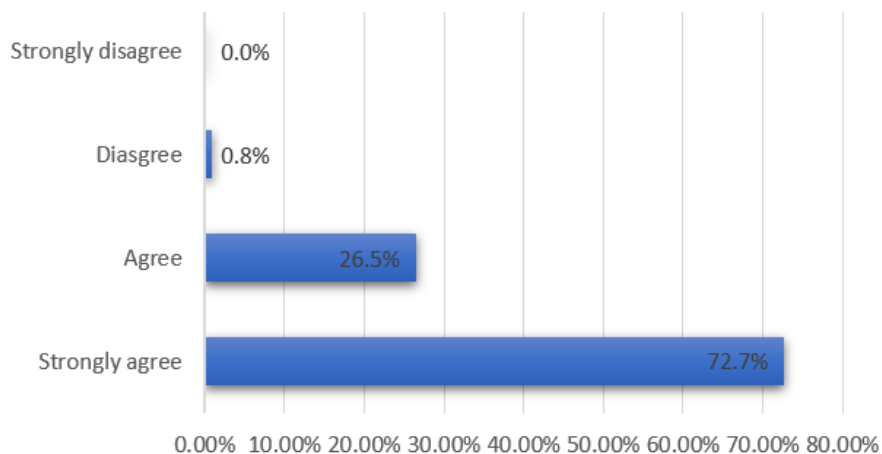


Source: Authors' research

Again, almost all respondents (99.2%) believe that they have an individual approach to their patients, as they know them well. Only 0.8% answered that they disagree with the statement (Fig. 5). An individual approach is an element of patient-centered care, in which the focus is placed not only on health, but also on the goals, values, desires and expectations of the individual (Trendafilova, A, Ivanova, Ts., Garov, Sv., 2025).

The Patient-Centered Outcomes Research Institute (PCORI) in the USA defines patient-centered care as “an activity that supports people and their health care providers to make informed health decisions, allowing the patient’s voice to be heard in assessing the value of health care alternatives” (Patient-Centered Outcomes Research Institute [PCORI], n.d.). This is a complex process in which the patients are an active participant in the “doctor-patient” relationship, actively control the flow of information and exercise their right to choose. An individual approach guarantees better success in offering recommended preventive measures such as seasonal flu vaccinations (Goranova-Spasova, R., 2024).

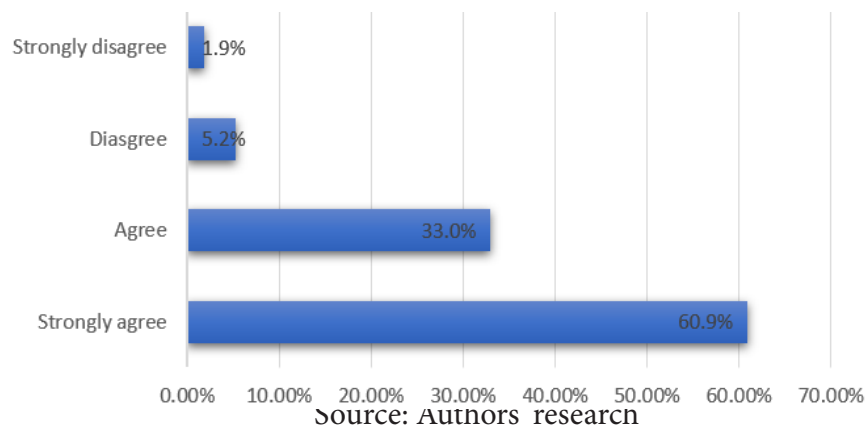
Fig. 5: I believe that I have an individual approach to my patients because I know them well



Source: Authors' research

Of the GP respondents, 60.9% strongly agree and 33.0% tend to agree that communication skills are as important as diagnosis and treatment skills. 7.1% do not attach as much importance to communication skills, answering the statement negatively. (Fig. 6) These results are again encouraging in terms of the readiness to develop better communication skills of GPs (Garov, S., Goranova-Spasova, R., Enchev, A, 2017).

Fig. 6: Communication skills are as important in my work as diagnosis and treatment skills



4. CONCLUSIONS

The data obtained reveal some factors that may hinder the implementation of an effective communication campaign by GPs regarding seasonal influenza vaccination. These include misinformation and lack of trust in the healthcare system; limited personal responsibility for health; imbalance between rights and responsibilities on the part of patients and the administrative workload of doctors.

This fact highlights the need for more active and targeted efforts to increase health literacy and awareness among the population by developing an adequate communication plan for seasonal influenza vaccination for general medical practice.

Continuing education and development of communication skills of GPs should be a priority in order to achieve better understanding and cooperation between doctors and patients, as well as for the successful implementation of recommended preventive programs.

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