



Public support for a Law on Physician Dual Practice in Poland – a nationwide cross-sectional survey

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Abstract

Introduction and Objective. Holding multiple jobs in the health system by a single healthcare professional is commonly defined as a physician dual practice (PDP). The aim of the study is to assess social attitudes towards the introduction of legal regulations regarding the employment of medical doctors in the public or private healthcare system in Poland, along with identifying factors related to opinions on the number of workplaces for doctors.

Materials and Method. A nationwide cross-sectional survey with computer-assisted web interviews was carried out in August 2025 among 1,162 adults aged 18–96 years. A self-prepared questionnaire was used.

Results. Among the respondents (n=1162), 39.8% declared that they had heard that a public debate is currently taking place in Poland regarding PDP. Support for the introduction of regulations on physician dual practice was declared by 43.4% of respondents (20.2% 'rather support' and 23.2% 'strongly support'). Among the respondents, 55.1% declared support (32.0% rather support and 23.1% strongly support) for the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility. A total of 38.9% of respondents believed that regulation on PDP will lead to improved quality of care and increased accessibility of medical services. Male gender (aOR:1.97; 95%CI:1.53–2.53; p<0.001), age 60 years and over (aOR:1.68; 95%CI:1.06–2.66; p=0.03), secondary education (aOR:1.33; 95%CI:1.02–1.73; p=0.03), and living in cities from 20,000 to 99,999 residents (aOR:1.60; 95%CI:1.04–2.46; p=0.04) were significantly associated with higher public support for a law on physician dual practice.

Conclusions. The study showed a low level of public awareness and support for new legal regulations on the organization of the healthcare system in Poland, and restrictions on physician dual practice.

Key words

physicians, healthcare, legal regulations, medical practice, health system, workforce, physician dual practice, public and private healthcare

INTRODUCTION

Holding multiple jobs in the health system by a single professional is commonly defined as a Physician Dual Practice (PDP). However, it refers not only to physicians but also to other health professionals [1, 2]. It is a pervasive phenomenon whereby healthcare professionals simultaneously engage in both public and private sector employment. PDP is often defined as physicians who 'combine work in public and private healthcare sectors' [3], typically involving salaried clinical work in public hospitals alongside fee-for-service clinical work in private practices [4]. This practice encompasses various arrangements, from full-time employment in public hospitals with additional private consultations to complex multi-site employment patterns spanning different healthcare sectors [3, 4]. The mechanisms of dual practice functioning vary considerably across healthcare systems, ranging from formal after-hours private practice arrangements to unauthorized concurrent employment that undermines public sector obligations [5].

Dual practice among physicians has multifaceted implications for healthcare delivery, influencing accessibility, quality, and equity. Existing evidence demonstrates that dual practice can be associated with both benefits and risks for public health systems [5–7]. Dual practice is described as detrimental to public health sectors in 58% of country reports [3], with the most common adverse consequence being lower quality of care in public hospitals (27%) [3, 8]. The phenomenon creates significant risks of conflicts of interest, as physicians may provide suboptimal care in public settings to drive patients towards their private practices, thereby compromising the principal-agent relationship with patients [4]. Additionally, dual practice contributes to staff shortages in public hospitals, brain drain to private sectors, and illegal outflow of public resources [3, 7, 9]. However, the practice also generates positive outcomes, including additional income for healthcare workers (68% of cases), higher professional satisfaction, and reduction of financial burden on governments to retain skilled personnel in resource-constrained settings [5, 7]. Evidence demonstrates that dual practice represents a global phenomenon with remarkable prevalence across different income levels and healthcare systems [4].

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A comprehensive literature review covering 195 countries found PDP reports in 157 countries (81%), with no significant difference between high-income countries (77%) and low and middle-income countries (82%) [3]. The scale of dual practice was particularly pronounced in low and middle-income countries (92%) compared to high-income countries (60%) [10]. In Europe, systematic reviews indicate widespread prevalence across various countries, with different regulatory approaches and implementation challenges [4]. The Brazilian healthcare system exemplifies this phenomenon, where 51.45% of physicians engage in both public and private services, while only 21.58% work exclusively in the public sector [10]. Regional variations reflect diverse healthcare financing structures, regulatory frameworks, and economic conditions that influence the extent and nature of dual practice arrangements [4, 7].

International experience reveals diverse regulatory mechanisms to address dual practice, ranging from complete prohibition to structured allowance with restrictions [4–6]. There are six primary regulatory approaches possible: complete prohibition, financial restrictions on private sector earnings, licensure restrictions, performance-based incentives, allowing unrestricted dual practice, and self-regulation through professional ethics [8]. However, implementation challenges are substantial, as countries that attempted total banning, such as Portugal and Greece, could not effectively eliminate the practice [4]. Financial restrictions, while theoretically sound, require well-established health financing systems and monitoring mechanisms that are often absent in resource-constrained settings. The most feasible approach for low and middle-income countries appears to be allowing dual practice with appropriate restrictions, ensuring minimum performance standards in public facilities while acknowledging the economic realities facing healthcare workers [5, 7].

The success of dual practice regulatory mechanisms fundamentally depends on achieving broad social consensus and public acceptance of proposed policy changes [11]. Research in health policy implementation demonstrates that public opinion significantly influences the effectiveness and sustainability of healthcare reforms [12]. Without adequate understanding of social attitudes, perceptions, and expectations regarding dual practice regulation, policymakers risk implementing measures that conflict with public sentiment, potentially undermining their effectiveness and legitimacy [9]. The complexity of dual practice as a phenomenon that affects both healthcare workers' livelihoods and patients' access to care necessitates careful consideration of diverse stakeholder perspectives, including the general public, who ultimately bear the consequences of these policy decisions [11, 12].

Furthermore, the democratic legitimacy of healthcare policy reforms requires meaningful consideration of public opinion and social acceptance [11]. Effective regulation of dual practice must balance multiple competing interests – ensuring adequate public sector staffing, maintaining healthcare quality, addressing the economic needs of healthcare professionals, and responding to public expectations for accessible, equitable care [3, 4]. This balancing act is only possible through a comprehensive understanding of how different segments of society perceive the dual practice phenomenon and what regulatory approaches they would find acceptable and legitimate [3]. The present study addresses

this critical knowledge gap by examining social perception and acceptance of dual practice prohibition, recognizing that sustainable healthcare policy reform requires not only technical and economic considerations, but also genuine social consensus based on informed public discourse and democratic participation in policy development [12].

The aim of this study is to assess social attitudes towards the introduction of legal regulations regarding the employment of medical doctors in the public or private healthcare system in Poland, along with the identification of factors related to opinions on legal regulations regarding the number of workplaces of doctors.

MATERIALS AND METHOD

Study design and population. A cross-sectional survey was carried out using the computer-assisted web interviews (CAWI) technique between 1 – 4 August 2025 on a representative sample of adults in Poland.

Data were collected by the public opinion survey company (Nationwide Research Panel Ariadna [13]) on behalf of the authors who provided the scientific context of this study. Participants were selected from over 100,000 registered and verified users of the research platform manager by the public opinion survey company, which allowed for obtaining a representative sample of adults in Poland. A quota sampling was used, including gender, age, and place of residence as variables considered in the stratification model. Demographic data used in the stratification model were received from the Statistics of Poland [14]. Participants were invited to participate in the study based on the text message system. If someone refused to participate in the study, the next respondent who met stratification criteria was selected and invited. The study questionnaire was accessible online on a dedicated website available after logging in to the research platform in accordance with the link provided in the invitation to participate in the study. A total of 1,162 adults aged 18 years and over participated in the study.

A similar methodology was used in previously published papers on population health in Poland [15].

Study questionnaire. The study questionnaire was self-prepared, based on A literature review and media analysis, with particular emphasis on statements by the Ministry of Health on potential directions of new legal regulations on healthcare system, and organization of doctors' work within the healthcare system financed from public funds [1, 3–7].

Phrases presented in public debates on new legal regulations were used to prepare questions that were addressed in this study. Respondents were asked whether they had ever heard of a public debate concerning the potential legislation to prohibit medical doctors from working simultaneously both in the public and private (physician dual practice – PDP) healthcare sectors (yes/no). Moreover, respondents were asked about their support for the introduction of regulations that would allow medical doctors to work either exclusively in the public healthcare system (e.g., only in a public hospital or clinic), or exclusively in the private sector, thereby prohibiting simultaneous employment in both systems, as well as support for the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility. Answers to both questions were scored on a 5-point

Likert scale. Respondents were additionally asked whether a scenario in which medical doctors could work exclusively in either the public healthcare system or the private sector would lead to improved quality of care and increased accessibility of medical services (5-point Likert scale). For statistical analysis, positive responses ('rather support' and 'strongly support', or 'rather yes' and 'definitely yes') were combined into one category. Ten questions on personal characteristics were also addressed.

A pilot study was conducted with 12 adult participants who completed the questionnaire twice, one week apart, to assess test-retest reliability. Following the pilot study, three questions were revised.

The study protocol was reviewed and approved by the Bioethics Committee of the Centre for Medical Postgraduate Education (Approval No. 70/2025, dated 16 July 2025).

Statistical analysis. Data were analyzed with SPSS version 29 (IBM Corp., Armonk, NY, USA) statistical software. Categorical variables were presented with frequencies and proportions. The chi-squared test was used to compare differences between categorical variables. Multivariable logistic regression models were used to identify variables associated with the public beliefs on legal regulations regarding doctors' work in the public and private healthcare systems (dependent variables). In bi-variable logistic regression, all independent variables were considered separately. Multi-variable models included only variables statistically significant in bivariable analyses. The strength of the associations was presented as odds ratios (ORs) and 95% confidence intervals (95% CI). Statistical significance level was set at $p < 0.05$.

RESULTS

Data were received from 1,162 adults aged 18–96 years, 53.1% were females (Tab. 1). Detailed characteristics is presented in Table 1.

Among the respondents ($n=1,162$), 39.8% declared that they had heard that a public debate is currently taking place in Poland regarding whether legislation should be introduced to prohibit medical doctors from working simultaneously in both the public and private healthcare sectors (Tab. 2). Support for the introduction of regulations that would allow medical doctors to work either exclusively in the public healthcare system (e.g., only in a public hospital or clinic) or exclusively in the private sector, thereby prohibiting simultaneous employment in both system was declared by 43.4% of respondents (20.2% 'rather support' and 23.2% 'strongly support'). Among the respondents, 55.1% declared support (32.0% 'rather support' and 23.1% 'strongly support') for the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility. A total of 38.9% respondents believed that a situation in which medical doctors are allowed to work only in the public healthcare system or only in the private sector will lead to improved quality of care and increased accessibility of medical services (Tab. 2).

Multivariable logistic regression analyses are presented in Tables 3–6.

Male gender (aOR:1.44; 95%CI:1.13–1.84; $p=0.003$) and using public and/or private healthcare services in the last

Table 1. Characteristics of the study population ($n=1,162$)

Variable	n	%
Gender		
female	617	53.1
male	545	46.9
Age [years]		
18–29	158	13.6
30–39	228	19.6
40–49	227	19.5
50–59	204	17.6
60+	345	29.7
Educational level		
primary	17	1.5
vocational	100	8.6
secondary	481	41.4
higher	564	48.5
Marital status		
single	318	27.4
married	602	51.8
informal relationship	185	15.9
other	57	4.9
Place of residence		
rural area	426	36.7
city below 20,000 residents	146	12.6
city from 20,000 – 99,999 residents	237	20.4
city from 100,000 – 499,999 residents	197	17.0
city $\geq 500,000$ residents	156	13.4
Having children		
yes	748	64.4
no	414	35.6
Number of household members		
1 (living alone)	192	16.5
2	435	37.4
3 or more	535	46.0
Occupational status		
active	744	64.0
passive	418	36.0
Self-reported household economic status		
good	571	49.1
moderate	434	37.3
bad	157	13.5
Using healthcare services in the last 12 months		
yes, within private healthcare system	118	10.2
yes, within public healthcare system	367	31.6
yes, within both public and private healthcare system	543	46.7
no	134	11.5

12 months ($p<0.05$) were significantly associated with higher awareness of public debate on prohibiting medical doctors from working simultaneously in both the public and private among adults in Poland (Tab. 3). Age 30–39 years (aOR:0.53; 95%CI:0.37–0.76; $p<0.001$) was associated with lower awareness of public debate on prohibiting medical

Table 2. Public attitudes towards the introduction of legal regulations regarding the employment of medical doctors in the public or private healthcare system in Poland (n=1162)

Variable	n	%
Have you heard that a public debate is currently taking place in Poland regarding whether legislation should be introduced to prohibit medical doctors from working simultaneously in both the public and private healthcare sectors? In other words, the proposal concerns allowing doctors to work either exclusively within the public healthcare system (e.g., public hospital or clinic) or exclusively in the private sector.		
yes	462	39.8
no	700	60.2
Do you support the introduction of regulations that would allow medical doctors to work either exclusively in the public healthcare system (e.g., only in a public hospital or clinic) or exclusively in the private sector, thereby prohibiting simultaneous employment in both systems?		
strongly oppose	165	14.2
rather oppose	243	20.9
rather support	235	20.2
strongly support	270	23.2
I do not know / hard to say	249	21.4
Do you support the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility?		
strongly oppose	99	8.5
rather oppose	164	14.1
rather support	372	32.0
strongly support	269	23.1
I do not know / hard to say	258	22.2
In your opinion, would a situation in which medical doctors are allowed to work only in the public healthcare system or only in the private sector lead to improved quality of care and increased accessibility of medical services?		
definitely not	143	12.3
rather not	245	21.1
rather yes	288	24.8
definitely yes	164	14.1
I do not know / hard to say	322	27.7

doctors from working simultaneously in both the public and private among adults in Poland (Tab. 3).

Male gender (aOR:1.97; 95%CI:1.53–2.53; $p<0.001$), age 60 years and over (aOR:1.68; 95%CI:1.06–2.66; $p=0.03$), secondary education (aOR:1.33; 95%CI:1.02–1.73; $p=0.03$), and living in cities from 20,000 to 99,999 residents (aOR:1.60; 95%CI:1.04–2.46; $p=0.04$) were significantly associated with higher public support for a law prohibiting medical doctors from working simultaneously in both the public and private sectors among adults in Poland (Tab. 4).

Age 60 years and over (aOR:1.95; 95%CI:1.26–3.02; $p=0.003$), and using public healthcare services (aOR:2.26; 95%CI:1.50–3.42; $p<0.001$) or both public and private healthcare services (aOR:1.85; 95%CI:1.25–2.73; $p=0.002$) in the last 12 months were significantly associated with higher public support for the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility among adults in Poland (Tab. 5).

Male gender (aOR:1.88; 95%CI:1.47–2.39; $p<0.001$) and living in cities with 100,000 – 499,999 residents (aOR:1.62; 95%CI:1.03–2.54; $p=0.04$) were significantly associated with the public belief that a law prohibiting medical doctors from working simultaneously in both the public and private sectors will improve quality of care and increased accessibility of medical services (Tab. 6).

DISCUSSION

This is the first study on public support for a law restricting the ability of doctors to work only in the public or private healthcare system in Poland. Despite the ongoing public debate, this study showed the very low level of the awareness and understanding of this issue by society – only 39.8% of respondents declared knowledge on this subject. The answer was significantly associated with female gender aged 30–39. The study researched attitudes towards two types of limitations of dual practices: legal restriction and enhanced remuneration. In terms of legal restrictions, only 43.4% of respondents supported regulations that would limit doctors' workplaces exclusively to the public or private health system. Male gender, age 60 years and over, secondary education, and living in cities with 20,000 – 99,999 residents were significantly associated with higher support for a potential new law on doctors' working only in public or private healthcare systems.

This study contributes to the literature by addressing a key knowledge gap: the public's perceptions and acceptance of legal restrictions on dual practice. Sustainable healthcare reform must account for social consensus, informed public debate, and democratic engagement, in addition to technical and economic factors.

Despite the widespread prevalence and significant policy implications of dual practice, research on public opinion and social acceptance of regulatory measures remains remarkably scarce [11, 16]. The literature focuses predominantly on the perspectives of healthcare professionals and policymakers, with limited systematic investigation of citizen attitudes toward dual practice and its regulation [11]. Studies such as those conducted in Shanghai, China, found that 63.0% of medical staff supported dual practice, while 44.5% of patients believed it could reduce consultation difficulties [16]. However, comprehensive public opinion surveys examining societal attitudes toward dual practice prohibition or regulation are notably absent from the international literature [11]. This gap is particularly concerning given that effective healthcare policy implementation requires understanding and addressing public concerns, expectations, and acceptance levels [7].

Among the respondents, 38.9% believed that a law prohibiting medical doctors from working simultaneously in both the public and private sectors would improve the quality of care and increase accessibility of medical services. This was significantly associated with female gender and living in cities with 100,000 – 499,999 residents. This stands contrary to the previously cited studies, which indicated limited accessibility as one of the main adverse consequences of dual practices [3, 7]. This inconsistency may be caused by different perspectives of physicians, policy makers and patients – which have not been sufficiently studied. However, the specific context of each country's healthcare system must be taken into consideration.

Table 3. Factors associated with awareness of the public debate on prohibiting medical doctors from working simultaneously in both the public and private among adults in Poland (n=1162)

Have you heard that a public debate is currently taking place in Poland regarding whether legislation should be introduced to prohibit medical doctors from working simultaneously in both the public and private healthcare sectors? – ‘yes’

			Bivariable Logistic Regression		Multivariable Logistic Regression	
Variable	%	p	OR (95%CI)	p	aOR (95%CI)	p
Gender						
female (n=617)	37.0	0.04	Reference	0.04	Reference	0.003
male (n=545)	42.9		1.28 (1.02–1.63)		1.44 (1.13–1.84)	
Age [years]						
18–29 (n=158)	40.5	0.02	0.82 (0.56–1.19)	0.3	0.79 (0.53–1.17)	0.2
30–39 (n=228)	31.6		0.55 (0.39–0.79)	<0.001	0.53 (0.37–0.76)	<0.001
40–49 (n=227)	38.3		0.74 (0.53–1.05)	0.09	0.72 (0.51–1.03)	0.07
50–59 (n=204)	40.2		0.81 (0.57–1.14)	0.2	0.81 (0.57–1.16)	0.3
60+ (n=345)	45.5		Reference		Reference	
Educational level						
primary (n=17)	47.1	0.7	1.28 (0.49–3.37)	0.6		
vocational (n=100)	40.0		0.96 (0.62–1.48)	0.9		
secondary (n=481)	38.0		0.89 (0.69–1.14)	0.3		
higher (n=564)	41.0		Reference			
Marital status						
single (n=318)	40.3	0.9	1.25 (0.69–2.25)	0.5		
married (n=602)	39.7		1.22 (0.69–2.15)	0.5		
informal relationship (n=185)	40.5		1.26 (0.68–2.34)	0.5		
other (n=57)	35.1		Reference			
Place of residence						
rural area (n=426)	38.3	0.5	1.14 (0.78–1.67)	0.5		
city below 20,000 residents (n=146)	39.7		1.21 (0.76–1.93)	0.4		
city from 20,000 to 99,999 residents (n=237)	42.2		1.34 (0.88–2.04)	0.2		
city from 100,000 to 499,999 residents (n=197)	43.7		1.42 (0.92–2.19)	0.1		
city ≥ 500,000 residents (n=156)	35.3		Reference			
Having children						
yes (n=748)	41.6	0.09	1.24 (0.97–1.59)	0.09		
no (n=411)	36.5		Reference			
Number of household members						
1 (living alone) (n=192)	39.1	0.8	Reference			
2 (n=435)	40.9		1.08 (0.76–1.53)	0.7		
3 or more (n=535)	39.1		1.00 (0.71–1.40)	0.9		
Occupational status						
active (n=744)	39.4	0.7	0.96 (0.75–1.22)	0.7		
passive (n=418)	40.4		Reference			
Self-reported household economic status						
good (n=571)	42.4	0.2	1.29 (0.90–1.86)	0.2		
moderate (n=434)	37.6		1.06 (0.72–1.54)	0.8		
bad (n=157)	36.3		Reference			
Using healthcare services in the last 12 months						
yes, within private healthcare system	39.0	0.006	1.68 (0.99–2.84)	0.06	2.02 (1.18–3.48)	0.01
yes, within public healthcare system	38.4		1.64 (1.06–2.52)	0.03	1.65 (1.06–2.58)	0.03
yes, within both public and private healthcare system	43.8		2.05 (1.35–3.10)	<0.001	2.24 (1.46–3.42)	<0.001
no	27.6		Reference		Reference	

Table 4. Factors associated with public support for a law prohibiting medical doctors from working simultaneously in both the public and private sectors among adults in Poland (n=1162).

Do you support the introduction of regulations that would allow medical doctors to work either exclusively in the public healthcare system (e.g., only in a public hospital or clinic) or exclusively in the private sector, thereby prohibiting simultaneous employment in both systems? – “rather support” or “definitely support”.

Variable	%	p	Bivariable Logistic Regression		Multivariable Logistic Regression	
			OR (95%CI)	p	aOR (95%CI)	p
Gender						
female (n=617)	36.3	<0.001	Reference	<0.001	Reference	<0.001
male (n=545)	51.6		1.87 (1.48–2.36)		1.97 (1.53–2.53)	
Age [years]						
18–29 (n=158)	34.2	<0.001	Reference		Reference	
30–39 (n=228)	36.8		1.12 (0.74–1.72)	0.6	1.08 (0.69–1.69)	0.8
40–49 (n=227)	40.1		1.29 (0.85–1.97)	0.2	1.09 (0.69–1.72)	0.7
50–59 (n=204)	47.5		1.75 (1.14–2.68)	0.01	1.53 (0.94–2.47)	0.08
60+ (n=345)	51.9		2.08 (1.41–3.07)	<0.001	1.68 (1.06–2.66)	0.03
Educational level						
primary (n=17)	52.9	0.05	1.71 (0.65–4.49)	0.3	1.55 (0.57–4.20)	0.4
vocational (n=100)	42.0		1.10 (0.71–1.69)	0.7	0.94 (0.59–1.50)	0.8
secondary (n=481)	47.8		1.39 (1.09–1.78)	0.009	1.33 (1.02–1.73)	0.03
higher (n=564)	39.7		Reference		Reference	
Marital status						
single (n=318)	38.1	<0.001	Reference		Reference	
married (n=602)	48.7		1.54 (1.17–2.04)	0.002	1.16 (0.82–1.64)	0.4
informal relationship (n=185)	34.6		0.86 (0.59–1.26)	0.4	0.84 (0.56–1.27)	0.4
other (n=57)	47.4		1.47 (0.83–2.58)	0.2	1.10 (0.59–2.04)	0.8
Place of residence						
rural area (n=426)	44.1	0.09	1.45 (0.99–2.12)	0.06	1.29 (0.87–1.93)	0.2
city below 20,000 residents (n=146)	45.2		1.52 (0.95–2.41)	0.08	1.38 (0.85–2.23)	0.2
city from 20,000 – 99,999 residents (n=237)	48.9		1.76 (1.16–2.67)	0.008	1.60 (1.04–2.46)	0.04
city from 100,000 – 499,999 residents (n=197)	40.6		1.26 (0.81–1.94)	0.3	1.12 (0.71–1.76)	0.6
city ≥ 500,000 residents (n=156)	35.3		Reference		Reference	
Having children						
yes (n=748)	48.3	<0.001	1.75 (1.37–2.24)	<0.001	1.32 (0.94–1.85)	0.1
no (n=411)	34.8		Reference		Reference	
Number of household members						
1 (living alone) (n=192)	38.0	0.2	Reference			
2 (n=435)	45.7		1.38 (0.97–1.95)	0.07		
3 or more (n=535)	43.6		1.26 (0.90–1.76)	0.2		
Occupational status						
active (n=744)	42.5	0.4	0.90 (0.70–1.14)	0.4		
passive (n=418)	45.2		Reference			
Self-reported household economic status						
good (n=571)	42.2	0.5	0.82 (0.58–1.17)	0.3		
moderate (n=434)	43.8		0.87 (0.61–1.26)	0.5		
bad (n=157)	47.1		Reference			
Using healthcare services in the last 12 months						
yes, within private healthcare system	34.7	0.2	0.60 (0.36–0.99)	0.04	0.83 (0.49–1.43)	0.5
yes, within public healthcare system	43.6		0.87 (0.59–1.30)	0.5	0.82 (0.54–1.25)	0.4
yes, within both public and private healthcare system	44.4		0.90 (0.62–1.31)	0.6	1.02 (0.68–1.53)	0.9
no	47.0		Reference		Reference	

Table 5. Factors associated with public support for the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility among adults in Poland (n=1162)

Do you support the idea of offering higher remuneration to medical doctors who choose to work exclusively at a single medical facility? – “rather support” or “definitely support”.

Variable	%	p	Bivariable Logistic Regression		Multivariable Logistic Regression	
			OR (95%CI)	p	aOR (95%CI)	p
Gender						
female (n=617)	55.4	0.8	1.02 (0.81–1.29)	0.8		
male (n=545)	54.9		Reference			
Age [years]						
18–29 (n=158)	43.0	<0.001	Reference		Reference	
30–39 (n=228)	50.9		1.37 (0.91–2.06)	0.1	1.30 (0.86–1.98)	0.2
40–49 (n=227)	53.3		1.51 (1.01–2.27)	0.04	1.41 (0.92–2.17)	0.1
50–59 (n=204)	56.4		1.71 (1.13–2.60)	0.01	1.43 (0.91–2.24)	0.1
60+ (n=345)	64.1		2.36 (1.61–3.46)	<0.001	1.95 (1.26–3.02)	0.003
Educational level						
primary (n=17)	64.7	0.6	1.60 (0.58–4.39)	0.4		
vocational (n=100)	56.0		1.11 (0.73–1.71)	0.6		
secondary (n=481)	56.8		1.15 (0.90–1.47)	0.3		
higher (n=564)	53.4		Reference			
Marital status						
single (n=318)	52.8	0.5	0.82 (0.46–1.44)	0.5		
married (n=602)	57.1		0.97 (0.56–1.68)	0.9		
informal relationship (n=185)	51.9		0.78 (0.53–1.43)	0.4		
other (n=57)	57.9		Reference			
Place of residence						
rural area (n=426)	51.4	0.3	0.76 (0.52–1.10)	0.1		
city below 20,000 residents (n=146)	56.2		0.92 (0.58–1.44)	0.7		
city from 20,000 – 99,999 residents (n=237)	59.1		1.03 (0.68–1.55)	0.9		
city from 100,000 – 499,999 residents (n=197)	55.3		0.89 (0.58–1.35)	0.6		
city ≥ 500,000 residents (n=156)	58.3		Reference			
Having children						
yes (n=748)	59.0	<0.001	1.54 (1.21–1.96)	<0.001	1.17 (0.88–1.54)	0.3
no (n=411)	48.3		Reference		Reference	
Number of household members						
1 (living alone) (n=192)	58.3	0.3	Reference			
2 (n=435)	56.8		0.94 (0.67–1.32)	0.7		
3 or more (n=535)	52.7		0.80 (0.57–1.11)	0.2		
Occupational status						
active (n=744)	53.8	0.2	0.85 (0.67–1.09)	0.2		
passive (n=418)	57.7		Reference			
Self-reported household economic status						
good (n=571)	59.0	0.03	1.42 (0.99–2.03)	0.05		
moderate (n=434)	51.8		1.06 (0.74–1.53)	0.7		
bad (n=157)	50.3		Reference			
Using healthcare services in the last 12 months						
yes, within private healthcare system	48.3	<0.001	1.43 (0.87–2.36)	0.2	1.58 (0.95–2.62)	0.08
yes, within public healthcare system	62.1		2.51 (1.67–3.76)	<0.001	2.26 (1.50–3.42)	<0.001
yes, within both public and private healthcare system	55.8		1.93 (1.31–2.84)	<0.001	1.85 (1.25–2.73)	0.002
no	39.6		Reference		Reference	

Table 6. Factors associated with public belief that the law prohibiting medical doctors from working simultaneously in both the public and private sectors will improve quality of care and increased accessibility of medical services (n=1162).

In your opinion, would a situation in which medical doctors are allowed to work only in the public healthcare system or only in the private sector lead to improved quality of care and increased accessibility of medical services? – “rather yes” or “definitely yes”.

Variable	%	p	Bivariable Logistic Regression		Multivariable Logistic Regression	
			OR (95%CI)	p	aOR (95%CI)	p
Gender						
female (n=617)	32.6	<0.001	Reference	<0.001	Reference	<0.001
male (n=545)	46.1		1.77 (1.39–2.24)		1.88 (1.47–2.39)	
Age [years]						
18–29 (n=158)	34.8	0.002	Reference		Reference	
30–39 (n=228)	31.1		0.85 (0.55–1.30)	0.5	0.76 (0.48–1.18)	0.2
40–49 (n=227)	36.1		1.06 (0.69–1.62)	0.8	0.89 (0.57–1.40)	0.6
50–59 (n=204)	40.7		1.29 (0.84–1.98)	0.3	1.14 (0.71–1.82)	0.6
60+ (n=345)	46.7		1.64 (1.11–2.42)	0.01	1.31 (0.83–2.06)	0.3
Educational level						
primary (n=17)	47.1	0.5	1.52 (0.58–4.00)	0.4		
vocational (n=100)	39.0		1.09 (0.71–1.69)	0.7		
secondary (n=481)	41.0		1.19 (0.93–1.52)	0.2		
higher (n=564)	36.9		Reference			
Marital status						
single (n=318)	35.2	0.09	0.56 (0.32–0.99)	0.04	0.73 (0.39–1.35)	0.3
married (n=602)	41.0		0.72 (0.42–1.24)	0.2	0.72 (0.41–1.26)	0.2
informal relationship (n=185)	35.1		0.56 (0.31–1.02)	0.06	0.72 (0.38–1.37)	0.3
other (n=57)	49.1		Reference		Reference	
Place of residence						
rural area (n=426)	39.0	0.1	1.35 (0.92–2.00)	0.1	1.25 (0.84–1.86)	0.3
city below 20,000 residents (n=146)	41.1		1.48 (0.92–2.37)	0.1	1.34 (0.82–2.17)	0.2
city from 20,000 to 99,999 residents (n=237)	36.3		1.21 (0.79–1.85)	0.4	1.08 (0.70–1.68)	0.7
city from 100,000 to 499,999 residents (n=197)	45.7		1.78 (1.15–2.76)	0.01	1.62 (1.03–2.54)	0.04
city ≥ 500,000 residents (n=156)	32.1		Reference		Reference	
Having children						
yes (n=748)	42.4	0.001	1.52 (1.18–1.96)	0.001	1.33 (0.95–1.86)	0.1
no (n=411)	32.6		Reference		Reference	
Number of household members						
1 (living alone) (n=192)	37.5	0.9	Reference			
2 (n=435)	39.3		1.08 (0.76–1.53)	0.7		
3 or more (n=535)	39.1		1.07 (0.76–1.50)	0.7		
Occupational status						
active (n=744)	38.7	0.9	0.98 (0.77–1.25)	0.9		
passive (n=418)	39.2		Reference			
Self-reported household economic status						
good (n=571)	38.9	0.9	1.03 (0.72–1.48)	0.9		
moderate (n=434)	39.2		1.04 (0.72–1.52)	0.8		
bad (n=157)	38.2		Reference			
Using healthcare services in the last 12 months						
yes, within private healthcare system	37.3	0.9	0.91 (0.55–1.51)	0.7		
yes, within public healthcare system	40.1		1.02 (0.68–1.53)	0.9		
yes, within both public and private healthcare system	38.3		0.95 (0.64–1.40)	0.8		
no	39.6		Reference			

In Poland, longstanding debates have focused on the shortage of physicians and annual statutory salary increases in public sector. In Estonia, by contrast, workforce shortages have reached a critical level, with many remaining practitioners transitioning to the private sector due to better remuneration and working conditions [17]. Considering the above situations, limiting the number – assuming a shortage of medical staff and allowing them to choose their sector freely – could lead to an even greater outflow of doctors to the private sector. This, in turn, would significantly limit, and in some cases even prevent, access to healthcare for poorer individuals, thereby deepening health inequalities. Any policy regulating or restricting multiple practices must bear in mind the importance of the public healthcare system and the necessity of ensuring that it has the required number of doctors, without risking their excessive migration to the private sector.

More than half of respondents (55.1%) supported the idea of higher remuneration to medical doctors who choose to work only at a single medical facility. This was significantly associated with age over 60 years old and using only public or public and private healthcare together. However, comparing this answer with the previous one about the lack of conviction to improve the accessibility of services, the motivation behind this response requires further research. Nevertheless, financial incentives are the key factors next to professional development that affects physicians' choice of workplace [18]. Using human resources tools, such as competitive remuneration, attractive career paths, and opportunities for development, improving working conditions and providing support, is an approach of the National Health Service (NHS) in United Kingdom as a plan for the retention of the workforce [19].

Factors such as marital status, having children, number of members in the household, occupational status and economic status, were not significantly associated with any response, which shows that the debate is either insufficiently publicized or it is not a topic perceived by the population as a priority problem in the healthcare system in Poland.

Using only private healthcare during the last 12 months was also not significantly associated with support for higher remunerations. This suggests that adults in Poland are more cautious about their payments from their own pockets than transfers deducted from their salaries due to public contribution, but also the fact that accessibility in the private sector is perceived as being better than in the public system, which is confirmed from physicians' perspective [20].

Practical implications. This study for the first time researched the general perception of the issue of PDP by population of Poland and possible motivational and regulatory systems, providing an introduction for further research. The results shows that society shows greater support towards motivational enhancements (such as higher remuneration) rather than legal restrictions. In the existing literature, there is a lack of examples of effective regulations concerning the number of PDPs, as well as of public opinion on this matter, which renders this area in need of further, in-depth analysis – both from the perspective of the healthcare system and from society.

Considering the challenges of workforce shortages and an under-funded system, as well as the number of hours worked by doctors in Poland, certain types of regulations seem worth bringing into public debate. It is important to

bear in mind the significance of the public healthcare system in order to avoid inequalities in access to care for all citizens, regardless of their financial situation. In addition to legal regulations, it is worth paying attention to human resources solutions, such as competitive remuneration, attractive career development paths, improved working conditions, support, and the provision of necessary tools.

Limitations of the study. This cross-sectional survey was based on four questions, a relatively low number. The scope of the analysis was limited to the most important issues on potential legal regulations on the workplace of doctors in the public and private healthcare system, presented in ongoing public debate in Poland. Respondents were asked about their beliefs regarding the potential new legal regulations, in which recall bias may have occurred. The CAWI technique was used so that those households without internet access (around 4% of households in Poland) were excluded from the analysis. The study was limited to quantitative research methods. Incorporating qualitative components in future research could enrich the interpretation of the findings and provide a deeper understanding of the motivations underlying respondents' attitudes – particularly in the context of the complex ethical and social issues related to the organization of the work of physicians.

CONCLUSIONS

This study showed a low level of public awareness of issues concerning new legal regulations on the organization of the healthcare system in Poland, and restrictions on physician's practice within the public and private sectors. Less than half of adults in Poland declared support for regulations that would allow medical doctors to work only in the public or in the private healthcare system (physician dual practice limitation – PDP), and most Poles believed that this kind of legal regulation would neither improve the quality of care nor increase accessibility of medical services.

Gender, age, educational level, and place of residence were significantly associated with higher support for the new law on the number of doctors' workplaces. Further research is needed to gain a deeper understanding of the attitudes of healthcare providers, payers, and policymakers towards such changes, as well as their potential implications on the Polish healthcare system.

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