



Motivations for Volunteering among Future Healthcare Professionals during the COVID-19 Epidemic: A Case Study from Poland

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Abstract

Background: Ever since the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) struck health care systems in many countries have been seriously burdened. Simultaneously, thousands of medical students across Europe have volunteered to support the fight against the COVID-19 pandemic.

Objectives: The paper aims to analyse the motivations for the volunteering among future healthcare professionals in times of a coronavirus outbreak.

Material and methods: The study was conducted among 311 students of Poznan University of Medical Sciences, Poland, who answered questions regarding the reasons they became involved in voluntary service during the pandemic. Answers were used to categorize respondents' motivations for their voluntary service in different functions.

Results: While four functions served by volunteering during the coronavirus pandemic have been identified: values, enhancement, career and social, students were mainly motivated by altruistic reasons: the ideal of doing good, helping others and giving something back to the community. Moreover, many believed that as future health professionals it was their duty to engage, whatever the risk. Gender and religiosity were the key factors conditioning students' motivations.

Conclusions: While volunteering has served many purposes during the coronavirus pandemic, value-based motivations were the primary force behind students' engagement. At the same time, students' religiosity seems the key factor that determined their motivations.

Key words: COVID-19 pandemic; future healthcare professionals; motivations, voluntary service, Poland

Background

The first case of SARS-CoV-2 infection confirmed by a laboratory test in Poland was announced officially on 4 March 2020, while the first person

infected with the coronavirus disease 2019 (COVID-19) died on 12 March. Consequently, between 10 and 20 of March lockdown-type control measures were imposed by the Polish government which included the closing of schools and universities, cancelling all mass events and forbidding non-essential travels. Non-family gatherings were also limited to two persons and religious gatherings to six. Moreover, starting from 15 of March Poland temporarily closed its borders to non-citizens, international flights and rail services were suspended and all Polish citizens returning from abroad had to undergo a two weeks long voluntary quarantine. Finally, in accord with the ordinance of the Minister of Health a state of epidemic was announced on 20 of March, which resulted in other restrictions including: the temporary restoration of border controls, closing of shopping centres, restaurants and bars, and banning of public gatherings of more than 50 people. Despite all these measures, up till 1 of July 2021 there has been confirmed 2,880,596 cases of infections and 75,135 of patients died [1]. At the same time, in comparison to other European countries, including Italy, Spain or the United Kingdom, the incidence of COVID-19 in Poland during that time was still relatively low at 3.3 total cases per 1 million population [2].

Simultaneously, thousands of medical students in Poland have volunteered their services to support the fight against the coronavirus pandemic. Starting from 12 of March 2020, Poznan University of Medical Sciences (PUMS) started encouraging its students to volunteer, and a day later its rector and the governor of Wielkopolska province signed an agreement which made it possible for volunteers to work in local hospitals and sanitary-epidemiological stations. Immediately, students from the faculties of Medicine, Pharmacy and Health Sciences reported their willingness to help in fighting the COVID-19 pandemic. Consequently, more than five hundred students volunteered in hospitals, emergency units, hospital pharmacies, sanitary-epidemiological stations and the university's diagnostic laboratory where they care for patients, conduct epidemiological interviews over the phone, take a medical history from those infected, help in administrative and office work, give telephone advices in call centres, translate English texts about COVID-19, sew pro-

tective masks or help in distribution of medical equipment to healthcare units.

Their service is of special importance because in many countries health care systems have been seriously burdened by the SARS-CoV-2. Moreover, healthcare professionals are at the highest risk of being infected and according to the Chief Sanitary Inspectorate 95,057 healthcare professionals in Poland were infected, including: 22,493 physicians, 57,060 nurses, 5,488 midwives, 3,317 paramedics, 2,536 pharmacists, 2,254 dentists, 1,879 laboratory diagnosticians and 30 feldshers. Moreover, 222 medics have died: 106 physicians, 78 nurses, 14 dentists, 7 paramedics, 6 midwives, 5 pharmacists, 4 feldshers and 2 laboratory diagnosticians [3].

Nevertheless, students' volunteering is not limited to helping in hospitals and medical institutions as they have also organized so called 'Koronalia', which provides help for medics and their families' everyday activities. Moreover, they engage in informative actions in social media and sanitary-epidemiological stations, translate English texts about COVID-19 and make supplies of personal protective equipment.

At the same time, many research endeavours show that modernisation of societies and the individualization of the young generation provokes a shift from traditional, community volunteering to its more individualistic forms, i.e. voluntary activities driven by collective or altruistic motives are being replaced by individualised and goal-oriented volunteering [4–9]. Thus, while there is plenty of research on the motivations and experiences of college and university student volunteers [10–15], this paper aims to analyse the motivations for the volunteering of Polish medical students' during the COVID-19 pandemic.

Material and Methods

Study design

The study was conducted between 5 and 30 of May 2020 among students of Poznan University of Medical Sciences, Poland. The survey was conducted with a standard questionnaire that was constructed from themes

based on a review of the literature and the study's aim. Initially, an application was submitted to the University Student Council Board (USCB) to obtain permission to complete the study. The process of elaborating the questionnaire followed the guidelines of the European Statistical System [16]. First, during an online focus-group meeting five students and one sociologist elaborated a list of important issues on students volunteering, which resulted in developing a questionnaire which was assessed by six external reviewers (four members of the USCB, one physician and one sociologist). Second, the questionnaire was pre-tested via an online questionnaire with another five students. Based on the pilot study, three questions were reformulated. The final version of the questionnaire was again evaluated by another three external reviewers. After receiving final approval from USCB, an online survey was distributed to all those students who have volunteered. Additionally, ethics approval and research governance approval were obtained from the PUMS Bioethics Committee (KB – 831/20).

Questionnaire

The questionnaire included three sections. The first asked questions regarding students' reactions to pandemic crisis and anxieties related to voluntary service. The second section included questions regarding the main reasons students volunteered. Participants were also asked to indicate their agreement with the answers on a scale of 1–5, and mean values have been computed for these variables based on all responses, which were used to categorize respondents' motivations for volunteering into different functions. Thus, four main functions of volunteering were identified: values (when volunteering appeals to altruism and public service), enhancement (which relates to psychological development and personal growth), career (when volunteering serves as a mean for developing personal career) and social (which relates to one's desire to establish relationships with others) [10]. The last section of the questionnaire gathered demographic information regarding gender, faculty, year of study, religiosity and earlier experience with the voluntary service.

Statistics

The data collected in the questionnaires were verified and checked for completeness, quality and consistency and exported into the statistical package JASP (Version 0.12.2). The results are presented as descriptive statistics. Welch's unequal variances *t*-test was used to compare differences between sub-groups (faculty, study year, gender and religiosity). A 5% level of significance was used for all the hypothesis tests. Effect size is given by Cohen's *d*. A reliability analysis was conducted, and the internal consistency of the questionnaire (Cronbach's $\alpha=0.807$, McDonald's $\omega=0.817$) was found to be sufficient for the purposes of the study.

Results

An e-mail invitation was sent to all 492 students engaged in voluntary service till 5 of May; and 63.2% (311 students) agreed to participate in the study (Table 1). Students who refused to participate in the study did so because they were unwilling to discuss their attitudes towards volunteering, lacked the time or the interest to take part in the study or had resigned due to personal reasons. 216 respondents were females (69.5%), while 95 were males (30.5%), all of Polish origin. Students who were in the last two of the three years of their studies volunteered more often than those who studied in the first, second or third year (201, 64.6% vs 100, 35.4% respectively). The vast majority of respondents studied medicine 70.4% ($n=219$). Among other volunteers, nursing and pharmacy students predominated (6.1%, $n=19$). Of those reporting a religious affiliation, 195 (62.7%) were members of the Roman Catholic Church, while 76 (24.5%) declared themselves as atheists and 34 (10.9%) as agnostics. 1/3rd of those who declared themselves as believers defined themselves as 'practicing believers' ($n=103$, 33.1%), while 106 as "non-believers who do not practice" (34.1%). Simultaneously, although for 101 students, religion was somehow important (32.5%), for 210 it was of little significance (34.4%) or irrelevant (33.1%). Of 223 (71.7%) students who declared that they had been volunteering before the epidem-

ics, 75 (24.1%) did so more than five times, 83 (26.7%) 3–5 times and 20 (6.4) only once.

Table 1. Socio-demographic characteristics of students

Characteristics	N (%)
Gender	
Female	216 (69.5)
Male	95 (30.5)
Year of study	
1	30 (9.7)
2	43 (13.8)
3	37 (11.9)
4	84 (27)
5	62 (19.9)
6	55 (17.7)
Faculty	
Medicine	219 (70.4)
Dentistry	11 (3.5)
Nursing	19 (6.1)
Midwifery	7 (2.3)
Medical analytics	13 (4.2)
Pharmacy	19 (6.1)
Physiotherapy	7 (2.3)
Public health	6 (1.9)
Other	10 (3.2)
Confession	
Roman Catholic	195 (62.7)
Other Christian	4 (1.3)
Agnostic	34 (10.9)
Atheist	76 (24.5)
Other	2 (0.6)
Religious practices	
Believing/practicing	103 (33.1)

Believing /not practicing	97 (31.2)
Nonbeliever/practicing	5 (1.6)
Nonbeliever/not practicing	106 (34.1)
What role does religion play in your life?	
Significant, it influences my life decisions and choices	36 (11.6)
Rather big, I try to follow religious principle in my life	65 (20.9)
Little, I separate religion from public issues	107 (34.4)
None, it is irrelevant to me	103 (33.1)
Have you ever been engaged in voluntary service before?	
Yes	223 (71.7)
No	88 (28.3)
How many times have you volunteered before?	
1	20 (6.4)
2	45 (14.5)
3–5	83 (26.7)
6–10	22 (7.1)
>10	53 (17)

Source: own elaboration.

Although after hearing the news about the coronavirus outbreak most students' reacted with fear over their loved ones (62.7%) and their own future (27.7%) or with anger (36.3%), the majority of respondents felt a strong willingness to act (65.3%). Table 2 shows that the main reason why students decided to volunteer during the coronavirus pandemic was their belief that the role of a medic is to engage and help those in need whatever the risk (24.4%). Next was their desire to help others (22.2%), followed by the willingness to be a part of something important (14.5%), the desire of gaining skills useful in their future profession (10.9%) and the belief that volunteering was better than sitting at home and studying or being bored (9.6%).

Table 2. Main motives of students' involvement in voluntary service during the coronavirus pandemic

What was the main reason to engage in voluntary service during the coronavirus pandemic	N (%)
To put my voluntary participation into my future application documents	5 (1.6)
To gain experience needed in my future profession	34 (10.9)
To establish new connections that will be useful in the future	1 (0.3)
I believe it is important to help others	69 (22.2)
I believe that the role of medics is to engage and help whatever the risk is	76 (24.4)
It gives me the opportunity to pay something back for all I have received myself	5 (1.6)
I wanted to be a part of something important	45 (14.5)
To experience the adventure	8 (2.6)
It gives me the opportunity to realise my passion	10 (3.2)
It is better than sitting at home and studying or to be bored	30 (9.6)
To meet new people, make new connections and friends	1 (0.3)
I was advised by my teacher/parent that I may benefit from it	2 (0.6)
I was encouraged by a friend who also volunteered	2 (0.6)
Other	23 (7.4)

Source: own elaboration.

Table 3 presents different functions of volunteering during the pandemic among students. The values function ranked the highest, with a mean of 3.88. Next was the enhancement function (M=3.19), followed by the career (M=2.97) and the social function (M=2.7). The most highly ranked altruistic/value-driven motivations were the desire to help others (M=4.41) and to give something back to the community (M=4.16), followed by the desire of being a part of something important (M=3.71) and

sonal motivations, the wish to realize one's passion ($M=3.56$) and the desire of having a sense of duty and pride dominated ($M=3.51$). On the other hand, students who were more driven by career related motivations wanted to gain new knowledge and skills that they could use in their future profession ($M=3.69$) and hoped to gain professional experience ($M=2.57$). Some also hoped for establishing new contacts that might benefit their future career ($M=3.69$). Less than half of the students were motivated by the desire to put volunteering on their résumé ($M=2.08$). The response "To help others" in our study group ranked the highest among our respondents and differed in a statistically significant way from each of the other responses ($p=0.000$). The least ranked motivations referred to the social dimension of volunteering: while many students wished to work with other people ($M=3.41$), or hoped to make new friends and establish new connections ($M=2.77$), few students were motivated to volunteer to gain recognition from their professors or friends ($M=1.92$).

Table 3. Students' motivations

	1	2	3	4	5	Mean
To enhance my professional résumé (Career)	139	67	57	37	11	2.08
To get new knowledge and skills that might be useful in my future profession (Career)	24	31	68	81	107	3.69
To gain professional experience (Career)	31	35	60	103	82	3.55
To make new contacts that might help me in the future (Career)	76	80	79	53	23	2.57
To help others (Value)	3	10	28	84	186	4.41
To give something from myself to the community (Value)	8	18	41	93	151	4.16
To realize the duty of public service inherent to the medical profession (Value)	46	38	57	69	101	3.45
To help succeed in the fight against the pandemic (Value)	24	29	59	107	92	3.69
To participate in something important (Value)	25	31	59	90	106	3.71
To have a sense of duty and pride (Enhancement)	29	47	52	101	82	3.51
To realize my passion (Enhancement)	27	33	73	95	83	3.56
To experience the adventure and to tell my kids in the future that I was a part of it (Enhancement)	78	61	64	70	38	2.77
To fill free time (Enhancement)	78	45	63	74	51	2.92
To make new friends and establish new connections (Social)	76	80	79	53	23	2.77
To work with other people (Social)	30	49	68	93	71	3.41
To gain the recognition of my professors, family and friends (Social)	146	82	48	32	3	1.92

Source: own elaboration.

The comparison of the results of the students' responses, when divided into groups according to the faculty or year of study, was inconclusive. Significantly statistical differences were revealed when we divided volunteers by gender and according to the importance of religion

in their life. In Table 4 differences in motivation are presented for the subgroups created according to the above criteria. In the group of students in whose life religion plays a significant role we had 26 females and 10 males, so there was no gender disproportion in this subgroup in comparison with the whole study group ($p=0.7$). The motivation differences between gender groups were found in 4 cases, and between the groups identified on the basis of the attitude to religion – in 5 cases.

Table 4. Motivation differences in sub-groups

Question	Female vs. male (216 vs. 95)				Students in whose life religion plays significant role vs. others (275 vs. 36)			
	t	df	p	Cohen's d	t	df	p	Cohen's d
To enhance my professional résumé	0.481	182.486	0.631	0.059	1.888	46.472	0.065	0.324
To get new knowledge and skills	1.136	165.266	0.258	0.142	-0.259	42.675	0.797	-0.048
To gain professional experience	0.672	179.136	0.502	0.083	-0.184	44.574	0.855	-0.033
To make new friends and establish new connections	-0.309	172.353	0.757	-0.038	0.367	42.441	0.716	0.068
To work with other people	1.372	167.920	0.172	0.171	-0.550	42.035	0.585	-0.103
To help others	3.190	141.469	0.002	0.414	-7.119	125.116	<0.001	-0.806
To give something from myself to the community	2.060	155.378	0.041	0.262	-4.597	68.686	<0.001	-0.631
To realize the duty of public service inherent to the medical profession	1.430	167.185	0.155	0.179	-3.158	47.822	0.003	-0.530
To participate in something important	1.091	165.943	0.277	0.137	-1.791	43.195	0.080	-0.327
To do something important and have a sense of duty and pride	0.715	158.719	0.476	0.090	-1.836	44.192	0.073	-0.328
To help succeed in the fight against the pandemic	1.511	165.019	0.133	0.190	-1.409	43.112	0.166	-0.258
To realize my passion: helping others	1.991	173.143	0.048	0.247	-4.048	49.521	<0.001	-0.663
To experience the adventure and to tell my kids in the future that I was a part of it	-0.930	166.255	0.353	-0.116	-0.262	42.503	0.795	-0.048
To make new contacts that might help me in the future	-0.063	180.053	0.950	-0.008	-0.052	42.691	0.959	-0.010
To fill free time	-2.055	181.349	0.041	-0.252	3.861	45.998	<0.001	0.668
To gain the recognition of my professors, family and friends	-0.288	156.360	0.774	-0.037	0.328	42.945	0.745	0.060

Source: Statistically significant results are written in bold characters.

Discussion

This study shows that similar to other countries, future healthcare professionals in Poland expressed a strong interest in active participation during the current health care emergency [17–24]. This is of special importance because especially during the COVID-19 crisis many countries are challenged not only by the virus itself but also by the staff shortages which makes the managing of patients even more difficult. This in turn, creates the risk that the entire healthcare system might collapse. The study also shows that while volunteerism constitutes the chief example of civic consciousness and responsibility it has much in common with social activism which is primarily focused on acting together for a common and specific purpose [25].

At the same time, while many research endeavours suggest that the frequency of traditional, value-based volunteering is decreasing and especially young peoples' volunteering is more oriented toward personal growth and their career [4–9] this study reveals that more students agreed with the motivational statements associated with altruism and public service, while the career and social dimension of volunteering recorded much lower means. Although all the students were aware of the potential benefits of volunteering in terms of acquiring new skills or experiences that might benefit their future professional career, either through establishing new connections or enhancing their professional résumé, career motivations were not the main reason for becoming involved. On the contrary, most students were driven by the ideal of doing good, helping others and giving something back to the community. This is in line with other studies that emphasized the importance of these values over other motivations. For example, Gage and Thapa [15] found that students' volunteerism is mostly motivated by their desire to help others and expand their character.

What is important is that among altruistic reasons the prime motivator was students' belief that volunteering during the COVID-19 outbreak was a unique vocation, i.e. they believed that as future health professionals it was their duty to engage and help whatever the risk. Thus, in con-

trast to Cloke et al. [26] who showed that people volunteer because ‘they want to’ rather than out of a sense of civic responsibility, this study shows that in the time of an epidemic students were also motivated by the ethical imperative to serve society, healthcare professionals and those who are disadvantaged. This should not come as a surprise because when asked why they chose medicine many students respond that they are driven by the desire to help people [14, 17–24, 27].

Nevertheless, in accord with Fényes and Pusztai [9], many volunteers from our study reported being driven by more individualistic and career motives, i.e. they hoped that volunteering will help them to grow personally, gain new knowledge and skills or develop their personal career. At the same time, although students were motivated to some degree by a general awareness of the need to enhance their CV, the desire to pass their summer internships or to gain recognition from others, including their professors, rarely was any of these motives in the first place, though they were acknowledged by many, though not all, students. Thus, although Handy et al. [8] rightly suggest that many students focus on the so called *résumé* building in volunteering, this study confirms Holdsworth’s [12] observation that the learning opportunities of volunteering are not necessarily directly related to future employment opportunities or to current studies, but may be more to do with young people’s negotiation of their transition to adulthood. Thus, while students recognised that volunteering is something to put on their *résumé*, for the majority it was in the nature of an additional benefit rather than a prior motivation. Nevertheless, students were aware that by helping others they were also helping themselves. Finally, this study did not reveal a group of students motivated by social reasons, i.e. the desire to make new friends and work with other people. At the same time, it should be stressed that students’ volunteering motivations were often a mixture of altruistic and egoistical drivers [4, 5, 7, 8, 12].

Finally, this study shows that gender and religiosity were the key factors that determined students’ motivations to volunteer. In general, females and students who defined themselves as practicing believers for whom religion was important, favoured value-expressive motivations, primarily the feeling of moral duty and the desire of helping others, more

often, while males and nonbelievers frequently favoured instrumental attitudes [7–9, 14, 2]. Moreover, it seems that the influence of religiosity on volunteers' motivations was stronger than the one of demographic characteristics.

Strengths and limitations

Although to the best of our knowledge this is the first study on the future healthcare professionals' students' motivations to volunteer during the COVID-19 pandemic, it also has a few limitations. First, although the questionnaire was sent to all students who engaged in the voluntary project such non-random sampling prevented an analysis of the socio-demographic and socio-cultural background of the issues discussed in the research. Second, although the response rate was high, the study included students from only one medical university in the country. Third, this study represents solely the opinions of students who agreed to participate in the study. Consequently, the results cannot be generalized on the entire population of future health professionals. Finally, to understand better volunteers' motivations more in-depth studies would be required. However, some advantages of this study should also be acknowledged. Most importantly, as this is the first study on students' motivations to volunteer during a coronavirus pandemic in Poland, it may stimulate further research on the topic.

Conclusions

While many research endeavours show that, increasingly, young people volunteer mostly for individualistic reasons, this study suggests that during the coronavirus epidemic students' reported being mainly driven by altruistic and community orientated reasons. Nevertheless, although most of the students who declared that after hearing about the epidemic they felt a strong willingness to act, it seems that even in a time of health crisis in reality volunteering serves many purposes. Indeed, while value-based motivations were the primary force behind students' volunteering

followed by personal enhancement motivations, many respondents wanted to learn new skills and gain professional experience or establish new contacts. Nevertheless, for most of the students volunteering was not a part of a strategic goal to enhance their CVs. What is also important is that students' religiosity seems the key factor that determined their motivations.

Authors' contributions

JD designed the study and collected the data. DW performed the statistical analyses. JD and DW conducted the literature search, had full access to all of the study data, discussed the results of the questionnaire and interpreted the data. Both authors wrote the manuscript and approved its final version.

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Conflict of Interest

The authors declare no conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Ethical approval

This study was performed in line with the principles of the Declaration of Helsinki. The questionnaire and methodology for this study were approved by the vice-rector for didactics of the PUMS, Poland and the USCB. Ethics approval and research governance approval were obtained from the PUMS Bioethics Committee (KB – 831/20).

Informed consent

Informed consent was obtained from all individual participants included in the study.

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