

# PARTICIPATION OF POLISH PARAMEDICS IN MISSIONS ABROAD – SELECTED ISSUES

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## Abstract

**Aim:** Assessment of the preparedness of paramedics for mission trips. Evaluation of the mission as a place for professional development of paramedics. Assessment of the usefulness of the experience gained by paramedics on missions in working conditions in Poland. Analysing the attendance of paramedics on missions. Learning about personal opinions and experiences of selected participants of missions.

**Material and Methods:** The study was conducted between 01.2020 and 08.2020. The research group consisted of 20 paramedics of different ages. Data were collected using an electronic survey consisting of 22 questions and extended telephone interviews consisting of 33 questions. Statistical data obtained from the Redemptoris Missio Foundation were used to analyse attendance.

**Results:** The majority of survey participants rated their preparation for their first mission at a score of 3 (f=0.45) or 4 (f=0.35) on a 5-point scale. The most frequently used skill was foreign language, with 9 (f=0.45) respondents using it all the time and 9 (f=0.45) using it frequently. The paramedics experienced the greatest development in the area of non-medical skills (f=0.6) and in foreign language use (f=0.5). Most of the respondents rated the usefulness of the experience gained as 5 (f=0.35) or 4 (f=0.25) on a 5-point scale. Analysis of the obtained statistical data showed very low attendance of paramedics on missions compared to other medical professions. The interviews provided an in-depth look into the feelings and opinions of selected paramedics regarding missions, which were mostly consistent or similar.

**Conclusions:** The paramedics believe that they are sufficiently prepared to go on missions. Thanks to missions: they gain new experience, consolidate their knowledge and skills, exchange experience with medical personnel from all over the world. However, missions do not allow one to fully utilize their expertise in emergency medicine. Experience gained abroad is proved to be useful for paramedics in working conditions of Polish health care system. Attendance of paramedics on missions is very low, but there are a lot of potential areas where their knowledge and skills could be used.

## Key words

emergency medical services,  
paramedics,  
medical mission,  
volunteerism

## INTRODUCTION

The development of civilization has contributed to the occurrence of threats, including, among others, increasing social stratification in individual countries and increasing environmental degradation. Western civilizations are responsible for some of them, especially in the so-called “third world countries”. Indirectly – through the negative influence of colonialism on countries in Africa, South America and Asia, as well as directly – through the increased exploitation of natural resources, which can lead to disasters and slavery among the local population [1, 2].

In response to the effects of these actions and a sense of collective responsibility for others, humanitarian organizations began to emerge, which brought together volunteers to provide assistance for those who needed it the most. Although the first such organization established by Henrei Dunant in 1863 is the Red Cross [3], it is only in the 1980s that a signifi-

cant growth in the number of charity organizations worldwide is observed [4].

In Poland, the first humanitarian organization with an international range – Polish Humanitarian Action – was established in 1992 [5]. In 1999, it was joined by the Polish Medical Mission [6] and in 2006 by the Polish Centre for International Aid [7].

The inspiration for writing this paper was and continues to be the problem of staff shortages

in health care facilities, including paramedics in developing countries and the ever increasing, but still small number of volunteers who are willing to take part in various types of missions.

## AIM

Assesment of the preparedness of paramedics for mission trips. Evaluation of the mission as a place for professional development of paramedics. Assesment of the usefulness of the experience gained by para-

medics on missions in working conditions in Poland. Analysing the attendance of paramedics on missions. Learning about personal opinions and experiences of selected participants of missions.

**MATERIAL AND METHODS**

The study involved 20 Polish paramedics, including 15 men and 5 women, aged 25-50 years, who participated at least once in a mission at least once in their lives.

An online questionnaire of our own authorship was used to conduct the study. This tool consisted of 22 open-ended and closed-ended questions regarding, among other things: types and locations of missions, motivation of paramedics, requirements and preparation before going on missions, usage of their knowledge and skills, and future plans related to missions. In the questions concerning the evaluation of their preparation and usefulness of the gained experience, the respondents were asked assesment

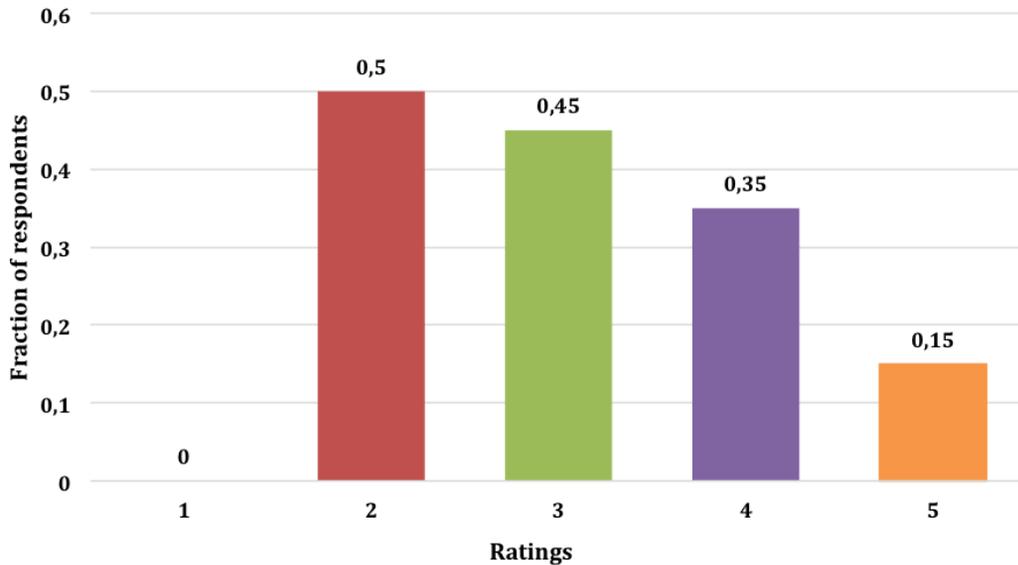


Fig. 1. Respondents' assessment of their preparation to go on their first mission.

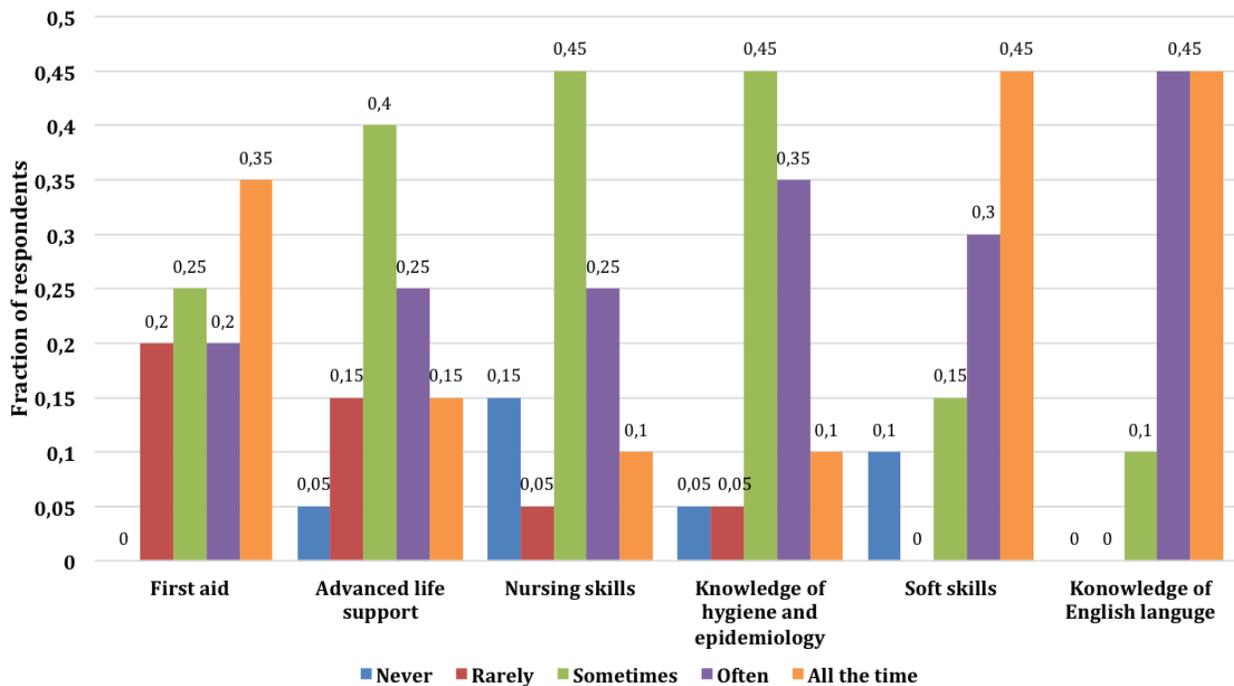


Fig. 2. Use of knowledge and skills during a mission trip.

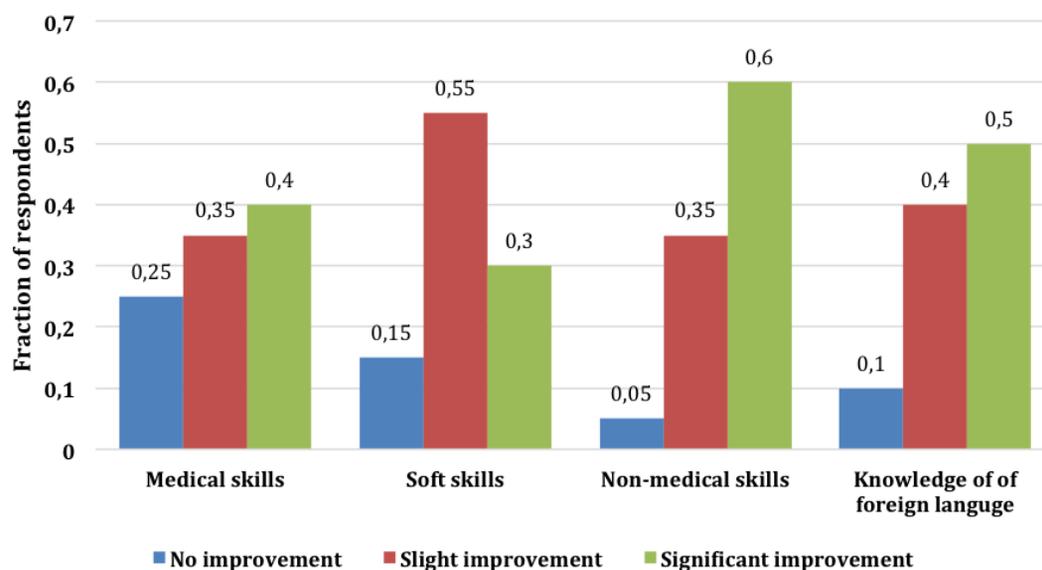


Fig. 3. Skill development during a mission trip.

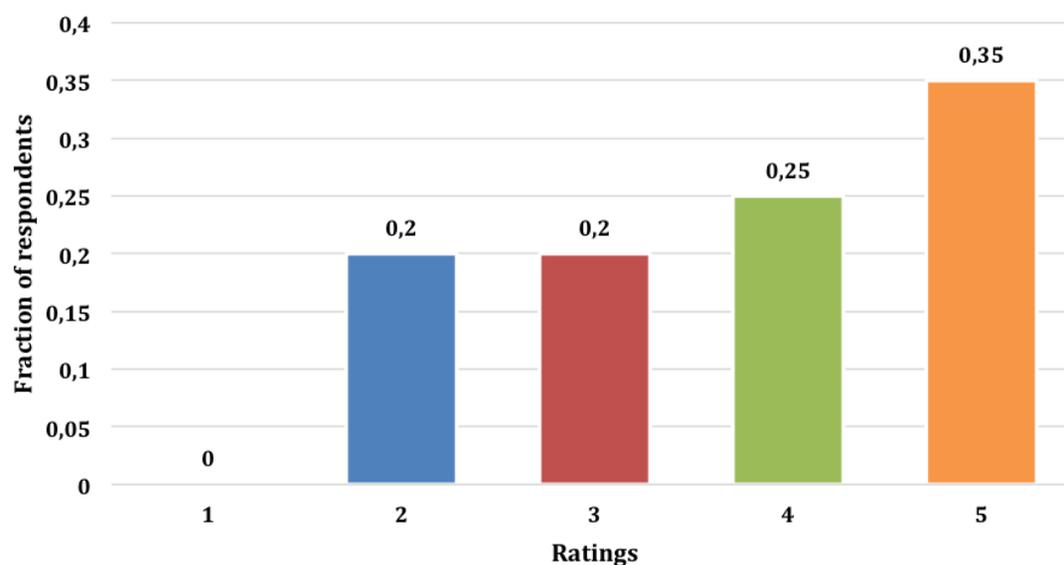


Fig. 4. Usefulness of experience gained on missions in the work of a paramedic in Poland.

of given aspect qualitatively on a scale from 1 to 5, where 1 meant the worst assessment and 5 the best.

The small number of study participants, due to the conditions of participation in the survey, prevented the collection of a representative sample group. For this reason, descriptive statistical analysis was applied to all partial values, and results are presented on a fractional scale (f). The fraction value was calculated in relation to the total number of responses given by the respondents to the question asked.

An extended interview was conducted with three medics who met the inclusion criteria.

The inclusion criteria were: higher education (minimum bachelor's degree) in emergency medicine, participation in at least two missions, the extraordinary nature of the mission, and its impact on personal and professional life.

The research tool for the extended interview was a script containing 33 questions about: basic information concerning the missions in which they participated; their motivation; preparation for the trip; the course of the missions, including the conditions on them; the medical personnel with whom they cooperated; observations about the trip itself and the

Table 1. Statistics from the Redemptoris Missio Foundation on medical representatives going on foreign missions through them.

YEAR	Medical Staff							Total
	Doctors	Dentists	Students	Nurses	Midwives	Paramedics	Others	
1991			6					6
1992								0
1993		1	6				1	8
1994								0
1995								0
1996	2		2					4
1997	4	2	3					9
1998	1			1				2
1999	5	1	4	1				11
2000			4					4
2001	3	1	4	2				10
2002	11		10				4	25
2003	2	2	6	1			1	12
2004			5					5
2005	2		4					6
2006	3		5					8
2007	2		2					4
2008	2		2				1	5
2009	1		2		1			4
2010	1		1	2				4
2011	3	1	5	1				10
2012	2	3	2	1				8
2013	3	2	2	1	2			10
2014	4	3		1	1	1		10
2015	7	2	4		2			15
2016	5	5	1			1		12
2017	5	7	1		1		3	17
2018	13	1	1	1	3	1	2	22
2019	12	8	2		1		8	31
	<b>93</b>	<b>39</b>	<b>84</b>	<b>12</b>	<b>11</b>	<b>3</b>	<b>20</b>	<b>262</b>

impact of the mission on their private and professional lives.

Transcripts were prepared from the recorded telephone interviews and analyzed for three guiding themes: life before and after going on missions; knowledge, skills, and experience gained on missions, safety, and experiences during missions.

In order to examine the frequency of paramedic trips, data obtained by the Polish Redemptoris Mission Foundation, which prepares and mediates medical personnel for medical, humanitarian, training and development missions, were analysed.

## RESULTS

Most respondents (12) participated in a medical mission, 7 in a peacekeeping mission, 6 in a training mission, 3 in a development mission, and 2 in a humanitarian mission. 12 participated in a mission more than once. The paramedics participated in missions in: Asia (11 respondents), Africa (9 respondents), Europe (8 respondents), Australia and Oceania (2 respondents), South America (1 respondent).

The most popular organizations that mediated trips to missions were: Polish Centre for International Aid, Polish Military Contingents, Polish Medical Mission.

The majority of study participants – 9 ( $f=0.45$ ), rated their preparation for their first mission as 3, 7 ( $f=0.35$ ) as 4, and 3 ( $f=0.15$ ) as 5 on a 5-point scale. Only one ( $f=0.05$ ) study participant rated their preparation at 2, no one gave a rating of 1 (Fig. 1).

The skills most frequently used during the mission were: English language skills – 9 ( $f=0.45$ ) responses “all the time”, 9 ( $f=0.45$ ) “often”, 2 ( $f=0.1$ ) “sometimes”) and soft skills (9 ( $f=0.45$ ) responses “all the time”, 6 ( $f=0.3$ ) “often”, 3 ( $f=0.15$ ) “sometimes”, 2 ( $f=0.1$ ) “never”. The respondents used also: knowledge about hygiene and epidemiology – 2 ( $f=0.1$ ) “all the time”, 7 ( $f=0.35$ ) “often”, 9 ( $f=0.45$ ) “sometimes”, 1 ( $f=0.05$ ) “rarely”, 1 ( $f=0.05$ ) “never”, nursing skills – 2 ( $f=0.1$ ) “all the time”, 5 ( $f=0.25$ ) “often”, 9 ( $f=0.45$ ) “sometimes”, 1 ( $f=0.05$ ) “rarely”, 3 ( $f=0.15$ ) “never”. First aid was used least often – 7 ( $f=0.35$ ) “all the time”, 4 ( $f=0.2$ ) “often”, 5 ( $f=0.25$ ) “sometimes”, 4 ( $f=0.2$ ) “rarely”, and advanced life support – 3 ( $f=0.15$ ) “all the time”, 5 ( $f=0.25$ ) “often”, 8 ( $f=0.4$ ) “sometimes”, 3 ( $f=0.15$ ) “rarely”, 10 ( $f=0.5$ ) “never” (Fig. 2).

During the missions paramedics developed the most: foreign language skills – 10 ( $f=0.5$ ) developed them significantly, 8 ( $f=0.4$ ) developed them to a small extent, 2 ( $f=0.1$ ) did not develop them at all, non-medical skills – 12 ( $f=0.6$ ) developed them significantly, 7 ( $f=0.35$ ) to a small extent, 1 ( $f=0.05$ ) did not develop them at all. Medical skills were least developed – 5 ( $f=0.25$ ) did not develop them at all, and 7 ( $f=0.35$ ) to a small extent, soft skills – 3 ( $f=0.15$ ) did not develop them at all, 11 ( $f=0.55$ ) to a small extent (Fig. 3).

The largest group of respondents – 7 ( $f=0.35$ ) rated the usefulness of experience gained on missions as 5 on a 5-point scale, 5 ( $f=0.25$ ) as 4, 4 ( $f=0.2$ ) as 3 and 4 ( $f=0.2$ ) as 2 (Fig. 4).

Analysing the data obtained from the Redemptorist Mission Foundation, one can notice a systematic increase in the number of participants from all medical professions since the beginning of the statistics (Table 1). Over the years, several yearbooks can be noted in which the attendance of volunteers was significantly higher than neighbouring years, including: 1999, 2002, 2015, 2018 and 2019. This is mainly due to natural and humanitarian disasters occurring in the world in the years mentioned above and new medical projects coordinated by the Redemptorist Mission Foundation starting.

Also evident in Table 1 is the difference between the attendance of physicians, dentists and students, and the other medical professions, including paramedics, which account for one of the least numerous representations of medical professions. Extended interviews

were conducted with three paramedics. The first had 8 years of experience in the profession and had participated in 4 medical missions: in Ukraine (2 times), in Nepal, and in Lebanon. The second interviewee had 3 years of experience as a paramedic and 14 years of experience as a soldier and had participated in missions in Afghanistan, and also in Kosovo. The most recent paramedic had 20 years of professional experience and participated in nine foreign missions, including Georgia and Afghanistan, among others.

#### LIFE BEFORE AND AFTER THE MISSION

All interviewees indicated that they went on their first mission with established knowledge and experience. All three rated the trips positively and acknowledged that it had a positive impact on their personal and professional lives. For one of them, participation in missions influenced the decision to emigrate and also to start working as a paramedic in another country. Two medics emphasized that thanks to missions they appreciated access to running water or electricity, which are standard in Poland. All of them declared their willingness to go on another mission within 1-3 years. Expected destinations are: Iraq, Lebanon, Georgia.

#### KNOWLEDGE, SKILLS, AND EXPERIENCE GAINED ON MISSIONS

Participants in the interviews graduated with a bachelor's degree in emergency medicine and unanimously agreed that during missions they used the knowledge and skills gained on them. Each added, however, that medical experience gained in medical rescue teams in Poland or military experience from previous service proved more useful on the trips. Only one of the interviewees went on his first mission spontaneously and without much preparation, but this was due to the tense political situation in Ukraine. Two interview participants went through a detailed preparation process prior to their tours, during which they took part in a number of courses and trainings. Nevertheless, all rated their preparation for their first mission as good. All three acknowledged that they had developed their skills and gained new knowledge and experience through them. They also appreciated the opportunity to work with paramedics from other countries, which allowed them to exchange interesting experiences.

Two of them mentioned that non-medical skills such as foreign language skills, horseback riding and ability to move in the mountains were very useful.

During the interviews, a valuable remark was also made that one should not decide to go on such a trip immediately after graduation, but first gain relevant experience in Poland.

## SAFETY AND SURVIVAL DURING THE MISSION

Opinions on mission safety were very divided. One of the medics, who participated in the stabilization mission in Afghanistan, despite the fact that he felt relatively safe during the mission, was constantly accompanied by a sense of threat to his life. The other participant on the mission in Afghanistan, despite the military nature of the mission, constantly felt safe and protected. A paramedic who went alone on a mission to Ukraine felt threatened only on the first trip, which was due to lack of prior preparation. One of the participants pointed out the very hard working conditions in Afghanistan and the poor medical facilities which he encountered there. The other however, dealt with better medical equipment than the one he worked on in Poland. Extreme feelings among the participants were caused by the different nature of the mission, different year of departure and different region. The two paramedics got to know the local communities, their traditions and culture. They also had opportunity to taste traditional cuisine, so these trips were memorable.

## DISCUSSION

Our own research has shown that participation in a mission abroad in most cases positively affects the professional life of paramedics. The trips enriched the career of participants with new experiences, provided motivation for continuous improvement in their profession and allowed the exchange of knowledge and skills with medical personnel from around the world. In case of one of the respondents ( $f=0.05$ ), participation in the mission even contributed to changing the country of residence and taking a job there. 18 ( $f=0.9$ ) respondents expressed willingness to take part in another mission, and 15 ( $f=0.75$ ) would encourage their friends to do so.

Opinions were divided concerning the use of skills, knowledge, and development in terms of emergency medicine on missions. Missions were not considered an appropriate place to acquire skills and knowledge in emergency medicine, but only to consolidate the one already possessed and to test one's skills in different conditions. Only 8 ( $f=0.4$ ) of the respondents admitted that they used their knowledge and skills in advanced emergency medicine often or all the time during the mission. However, the trips were a good place to: use soft skills, develop non-medical skills, act without a plan and without preparation, make decisions under pressure, as well as use a foreign language – mainly English.

Experience gained on missions was considered useful in the paramedic profession by 12 ( $f=0.6$ ) re-

spondents, and 6 ( $f=0.3$ ) respondents indicated that the trip was an interesting career diversification, although missions rarely allowed to use specialized skills and knowledge in emergency medicine.

The attendance of paramedics on medical missions was very low and is not getting any better. It is questionable whether the reason for this is the usefulness of these professions in missions, since the presence of all medical professions, illustrated in Table 1, is needed for the proper functioning of the health care system. As one of the reasons for this state of affairs can be considered the small number of projects directed to the deficit professions, when many others focus exclusively on three groups – doctors, medical students and dentists. Selected projects offered by the Redemptorist Mission Foundation include: “Cardiologist in Africa”, “Dentist in Africa”, summer internships and medical volunteering for students. Another reason for this is the versatility of doctors and the possibility of using their skills in many situations – not only to provide assistance in health care facilities, but also to train staff in many specialist areas of medicine.

During the course of this study, despite attempts to reach many organizations, foundations, and community groups across the country, we were only able to obtain responses from 20 paramedics who had participated in mission trips.

The literature on the subject is scarce and the conclusions from the observations made are original and in agreement with the information available in the literature.

Jarosz [8] described medical volunteering in the Redemptorist Mission Foundation, analysed the attendance of various medical professions and presented the forms of preparing volunteers for missions. The following people went through the Foundation: physicians (93), students of the Karol Marcinkowski Poznań University of Medical Sciences (78), dentists (39), nurses (12), midwives (11), audiologists (4), paramedics (3), public health specialists (2), physiotherapists (1), other volunteers (13). Doctors played a dominant role in the above list, with the highest number of them leaving. Very low attendance of paramedics was also noticeable. The reason for this may be: the lack of projects aimed exclusively at paramedics, the focus of education mainly on non-hospital activities related to emergencies, as well as the relatively short presence of this profession in Poland. Jarosz [8] also notes a very important element of going on a mission, which is the preparation of volunteers before departure. It is necessary to develop and implement interdisciplinary training activities including the transfer of knowledge and skills in: prevention, diag-

nosis, treatment of tropical diseases, as well as international public health, cultural and social differences occurring in the area of mission centres operations, rules of conducting responsible aid activities in the area of the Global South, rules of maintaining safety, working conditions in mission hospitals and clinics.

This overlaps with the development of interdisciplinary training activities, which include the transfer of knowledge and skills in prevention, diagnosis, treatment of tropical diseases, as well as international public health, cultural and social differences occurring in the area of operation of missionary centres, principles of responsible assistance activities in the Global South, principles of safety and working conditions in missionary hospitals and clinics. This coincides with the responses of the participants in this study regarding the requirements they have to meet before leaving and the preparations for the trip.

Palion and Wieczorek [9] interviewed an experienced paramedic, a participant of many foreign missions. The main motivation of the paramedic to leave were new experiences and an attempt to find himself in the surrounding world. An important role was also played by the need for new experiences, testing themselves in unusual conditions, and constantly posing new challenges, which was also evident in the following study, this was also evident in this research. On the basis of the experiences gained, the interview participant listed the predispositions necessary to take part in medical missions, which included: openness, creativity, readiness to find oneself in new – unusual situations, and the ability to function well in a group in uncomfortable circumstances and under constant stress.

A study by Suchowiak et al [10] suggests that there is an opportunity to create a dedicated project for health professions less present in missions. The study also mentioned annual vaccination campaigns and the lack of appropriate personnel to facilitate them. This creates an area in which paramedics, for example, could become involved. Suchowiak et al [10] also described various nursing procedures that paramedics can perform, including physical examination on admission and administration of painkillers, which creates another opportunity for paramedics to be involved in these types of missions.

Lipska [11] describes the medical mission in refugee camps organized in Albania. In their everyday work, Polish physicians encountered various diseases. The most common were infections of the upper respiratory tract and gastrointestinal tract, as well as dermatological ailments. Exacerbations of chronic diseases related to discontinuation of permanently

prescribed treatment were also a serious problem, most likely due to lack of permanent access to health care, due to refugee status. An extensive vaccination campaign was conducted among the refugees during the first weeks of work. Surgeons at the makeshift infirmary treated injuries, gunshot wounds, and frostbite resulting from the several-day journeys through the mountains. There were often parasitic diseases, especially head lice. During the refugees' stay in the camps, the ill health of the patients was most often connected with various infections, and during the summer heat, a large group were dehydrated patients – especially the elderly and children, as well as those with sunburn. A constant pediatric problem was malnutrition or inadequate nutrition of infants and young children with symptoms related to deficiencies of appropriate vitamins and other micronutrients. There were also newborn babies among the patients, as well as women with advanced pregnancy. The above-mentioned activities could certainly be performed by paramedics, who have extensive experience in the above-mentioned activities. Paramedics could certainly be used, who have extensive experience in hospital emergency departments in Poland and who currently successfully support surgeons in wound care in the hospital conditions, as well as currently participate in the vaccination process against Sars-CoV-2. In the practice of medical rescue teams, paramedics also have to deal with the aforementioned illnesses on a daily basis, such as dehydration, defrost, burns. It is also not uncommon to deliver a baby in a non-hospital setting.

In his work, Pawłowski [12] described the impact of medical aid delivery on population evangelism at a mission place. One of the conclusions resulting from the work of the study was the need to increase the proportion and number of qualified medical personnel composed of representatives of the local population trained to provide medical services. The author pointed out the transition from a mission model in which personnel were dedicated solely to provide medical assistance for a specific period of time (medical missions), to those in which the emphasis is on training local personnel and making the local population independent of humanitarian aid (development and training missions). The paper [12] also addressed the significant problem of shortages of appropriate equipment to assist in local health and shortages of supplies – mainly medicines and bandaging materials. It is therefore required that specialized equipment and supplies be sent on future missions in addition to qualified personnel. Pawłowski [12] has classified external assistance in four dimensions: current communication with mission personnel

and support for their work in difficult conditions, appropriate preparation of personnel by organizing training in tropical medicine, assistance in case of illness and periodic health examinations, supplementation of personnel, among others by sending medical students to missions, who are treated as additional help and can gain valuable knowledge and skills, supplying missing medical equipment and necessary materials and medicines. It is very likely that in this way students not only from the medical faculty, but also from the emergency medical service or nursing can be involved.

In this work, the issues raised are not fully exhausted. However, according to the authors, it is a very interesting observation on the participation of paramedics in missions so far dominated by doctors, nurses and medical students.

The development of civilization, on the one hand, has contributed to the extension and improvement of the quality of human life, on the other – new problems have arisen, including primarily the demographic cri-

sis on the African continent, the expansion of extremist groups in less stable regions of the world and the migration crisis in Europe. A detailed knowledge of the topic would be of great importance in the attempt to cope with the problems and use for this purpose, so far neglected, professional group of paramedics.

## CONCLUSIONS

The paramedics believe that they are sufficiently prepared to go on missions. Thanks to missions: they gain new experience, consolidate their knowledge and skills, exchange experience

with medical personnel from all over the world. However, missions do not allow one to fully utilize their expertise in emergency medicine. Experience gained abroad proves useful for paramedics in working conditions of Polish health care system. Attendance of paramedics on missions is very low, but there are a lot of potential areas where their knowledge and skills could be used.

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### CONFLICT OF INTEREST

The Authors declare no conflict of interest.

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