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ORIGINAL ARTICLE

Polish doctors perception of the phenomenon of second victims – Pilot study among doctors during specialization training

Polscy lekarze o zjawisku drugich ofiar. Badanie pilotażowe wśród lekarzy w trakcie szkolenia specjalizacyjnego

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Abstract

Introduction and Objective. A physician who is directly or indirectly involved in an adverse patient event, an unintentional error, or a patient injury, becomes a second victim (SV) and strongly experiences various negative psychological and psychosomatic symptoms. The aim of the study was to analyze the perception of SV by young physicians in Poland.

Materials and Method. A cross-sectional survey was conducted among physicians and dentists pursuing specialty training at the School of Public Health of the Medical Centre for Postgraduate Education in Warsaw, Poland, between March – April 2024. A total of 123 physicians participated in the survey who represented more than 40 medical specialties in various regions of Poland.

Results. As many as 30% of the physicians felt that there is no room for error in modern medicine. Respondents had no doubt that the implementation of appropriate procedures to minimize risks is necessary (95%). At the same time, 62% of young physicians confirmed that they, or one of their colleagues, had been a second victim. In Poland, no care is provided for SVs (46%). According to those surveyed, a physician who has made a mistake needs legal care (98%) as well as psychological care (83%).The majority of respondents (92%) felt that training on SV was essential.

Conclusions. Building a culture of safety takes time. Legal and psychological care should be organized in parallel, as should training for medical staff and managers. However, the attitude of the infallibility of young doctors may make it difficult for managers to find an effective tool to support psychological care.

Key words

safety culture, second victim, physician training

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Streszczenie

Wprowadzenie i cel pracy. Lekarz, który jest bezpośrednio lub pośrednio zaangażowany w niepożądane zdarzenie dotyczące pacjenta, niezamierzony błąd lub uraz pacjenta, staje się drugą ofiarą (SV) i silnie doświadcza różnych negatywnych objawów psychologicznych i psychosomatycznych. Głównym celem badania była analiza postrzegania SV przez młodych lekarzy w Polsce.

Materiał i metody. Prezentowane badanie przekrojowe zostało przeprowadzone wśród lekarzy i lekarzy dentystów realizujących szkolenie w ramach specjalizacji w Szkole Zdrowia Publicznego Centrum Medycznego Kształcenia Podyplomowego w okresie od marca do kwietnia 2024 roku. W badaniu udział wzięło 123 lekarzy, którzy reprezentowali ponad 40 specjalności medycznych i różne regiony polski.

Wyniki. W tym badaniu aż 30% lekarzy uznało, że we współczesnej medycynie nie ma miejsca na błędy. Respondenci nie mieli wątpliwości, że konieczne jest wdrożenie odpowiednich procedur minimalizujących ich ryzyko (95%). Jednocześnie 62% młodych lekarzy potwierdza, że oni sami lub jeden z ich kolegów był drugą ofiarą. W Polsce SV nie mają zapewnionej opieki (46%). Zdaniem badanych lekarz, który popełnił błąd, potrzebuje opieki prawnej (98%) oraz psychologicznej (83%). Większość respondentów (92%), uznała, że niezbędne jest dla nich szkolenie dotyczące SV.

Wnioski. Budowanie kultury bezpieczeństwa wymaga czasu. Opieka prawna i psychologiczna powinny być organizowane równolegle, podobnie jak szkolenia dla personelu medycznego i menedżerów. Jednak cechująca młodych lekarzy postawa nieomylności może utrudniać menedżerom znalezienie skutecznego narzędzia wspierającego opiekę psychologiczną.

Słowa kluczowe

kultura bezpieczeństwa, druga ofiara, szkolenie lekarzy

INTRODUCTION

Medical errors constitute a significant public health problem and a serious threat to patient safety [1]. The causes of errors vary – from system problems to direct human errors [2]. However, the effects of errors are felt not only by patients and their families, but also by the doctor, the hospital and the health care system. The impact of these events on healthcare workers is a topic widely discussed in the literature, known as the Second Victim Syndrome (SVS) [3].This term initially applied only to doctors, but in subsequent years, Scott et al. proposed a broader scope of this concept, covering every person providing health services and extending it to injuries [4]. Those involved feel personally responsible for the poor outcome of the patient's treatment, which has a significant impact on their further work and personal life [4–5]. Therefore, in 2020, a new definition was proposed based on three concepts: people involved, content of the activity, and influence. Currently, a 'second victim' is any healthcare professional directly or indirectly involved in an adverse patient event, inadvertent error or patient injury, who becomes a victim in the sense that the event also affects them negatively [5].

It is important to provide support for doctors and other medical workers who have made a mistake, and at the same time help patients, their families and hospitals. The Global Action Plan for Improving Patient Safety 2021–2030, including the Health Worker Safety Charter of the World Health Organization (WHO) recognizes the need to provide ongoing psychological support to patients, families and healthcare staff in the event of a serious patient safety incident [6]. However, OECD documents emphasize the need to ensure safety at work for 'second victims' and improve their well-being [7].

In Europe, the British organization for the prevention of medical incidents (AvMA – Action Against Medical Accidents) has identified the main causes of safety problems in health care facilities, these are: a culture of blame, lack of proper leadership, listening to the concerns of medical staff and taking action to eliminate them [8]. The AvMA recommendations indicate that making a mistake is not in itself an intentional or bad act of faith, and employees should receive help and support from their organization[9–10].

Poland is at the beginning of the road to establishing a security culture. In 2023, the Act on quality in health care and patient safety was passed [11]. Pursuant to the Act, an entity providing health care services financed from public funds is obliged to ensure patient safety, and is obliged to have an internal quality and safety management system consisting of rules, procedures, methods and job descriptions. As part of the internal system, the healthcare entity monitors damage caused during diagnosis and/or treatment that is not related to the natural course of the disease, conducts research on patients' opinions and experiences based on a survey, and provides access to training aimed at obtaining and improving staff competences in the quality and safety of the services provided.

The article considers an error to be both the causes (omission and ordering), the stage of the treatment process (planning and execution), and its faulty course, which may lead to errors regardless of whether they cause or do not cause (latent error) unfavourable effects [1, 12].

OBJECTIVE

The aim of the study is to present the results of research on the phenomenon of second victims in the light of the attitude of doctors undergoing specialist training.

MATERIALS AND METHOD

The presented cross-sectional study is part of a broader research project of the Center for Postgraduate Medical Education (CMKP) in Warsaw, the leading centre in Poland for educating medical staff throughout the country. The study was conducted among doctors and dentists participating in postgraduate courses at the CMKP. Doctors undertaking specialization training in Poland are also obliged to participate in training courses in the field of medical law [13].

All doctors participating in the courses during March – April 2024 could take part in the pilot study. At that time, there were 201 participants on the courses, representing over 40 medical specialties and various administrative regions throughout the country. Participation in the study was voluntary and anonymous.

Each participant provided informed consent before starting the study. The survey form was created and hosted on Microsoft Europe servers, collecting data in the MS Forms application on the MS Office356 platform. Doctors learned about the possibility to participate in the survey on the first day of the course, and was available throughout the course. respondents completed the forms online, and an individual link to the survey was provided for each participant. 123 people (response rate 61%) completed the survey correctly. Incorrectly completed questionnaires were not recorded.

Data were analyzed using the Statistica v.13.3 package. Cross-tabulations and chi-square tests were used to compare categorical variables, and the level of statistical significance set at $p < 0.05$. The data was subjected to comprehensive statistical analysis using the Statistica v.13.3 package. Despite many correlations between pairs of variables, the level of significance was insufficient to determine the actual strength of the relationships.

The research method was an original questionnaire prepared by the authors of the article, based on a review of the literature on the second victim [3, 14–17]. The questionnaire contained 14 closed questions with the option to select one or more answer.

After analyzing the results of the pilot study conducted on the group of 123 doctors and dentists, in May 2024, the study on the second victims was reported to the Bioethics Committee of the CMKP.

RESULTS

Most respondents were women (64%). Almost twice as many men participated in the study 36%. The mean age was 32.4±6.2 years, median – 31 years. All respondents were doctors in training, with 14% having previously completed at least one specialization training. Among the respondents, 83% indicated the hospital as the place of primary employment, and 86% indicated public medical facilities as the place of primary employment. Almost a quarter of respondents (17%) worked in primary care. The majority of entities employing

doctors (as their main or additional place of employment) (67%) were located in large cities with a population of 100,000 or more or up to 500,000 inhabitants and above, and every fourth entity was located in a small town (32%) (Tab. 1).

Table 1. Characteristics of the study group

	n	%
Gender		
female	79	64
male	44	36
Age		
mean +/- SD	32.4 ± 6.2	
Medical education level		
physician without specialization	105	86
specialist	18	14
Place of primary employment (practice type)		
hospital	102	83
ambulatory care	21	17
Type of primary employment		
public institution	105	86
private institution	18	14
Location of primary employment		
rural area		
city up to 100,000 residents	1	
city from 100,000 to 500,000 residents	40	33
city above 500,000 residents	82	67
Working in primary care		
yes	21	17
no	102	83

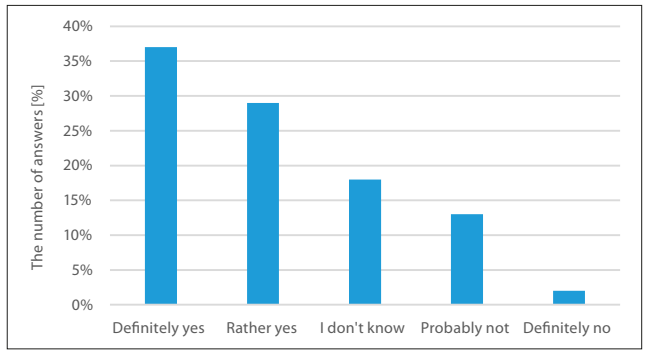

Figure 1. Were you personally or one of your colleagues a second victim?

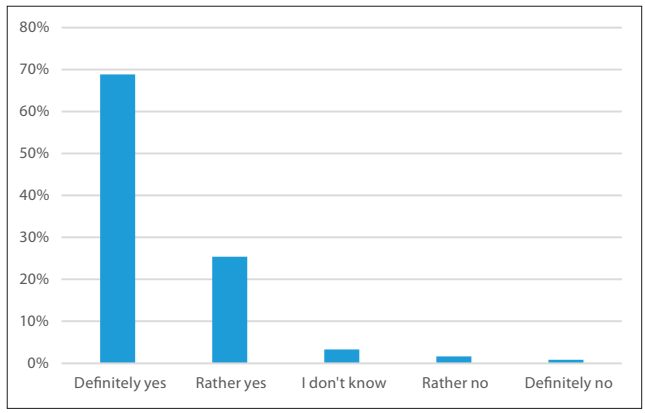

Figure 2. Do you think procedures are needed to minimize the risk of second victims?

among the surveyed group of 123 people believed that such procedures were not necessary. However, 3% had no opinion on this subject.

PART I – AWARENESS

Errors in modern medicine. The majority of respondents (58%) agreed that there is room for error in modern medicine. However, taking into account the fact that the respondents were young doctors (median 31 years old), it is worth noting that 30% of doctors and dentists in training (6% 'definitely not', 24% 'rather not') believed that currently there is already no room for error. Moreover, as many as 12% of doctors and dentists declared that they had no opinion on this subject.

Scale of the phenomenon of second victims. Respondents confirmed (62%) that they or one of their colleagues had been a second victim. The remaining doctors and dentists were divided into two groups: 21% of respondents declared that neither they nor any of their colleagues had not been second victims, although 18% were less certain, stating that they had 'probably not' been second victims. 20% of respondents had no opinion on this subject (Fig. 1).

The existence of procedures to minimize risk. When answering the question about the need for procedures to minimize the risk of SVS, respondents had no doubt that the implementation of such appropriate procedures is necessary (Fig. 2). As many as 95% – 70% 'definitely yes', 25% 'rather yes' – of respondents answered that procedures that minimize the risk of second victims are needed. Only two people

PART II – EMOTIONS

Stress in the workplace. The question about stress related to making a mistake showed that the majority of young doctors and dentists in training (96% – 'definitely yes' and 'probably yes') felt exposed to stress related to a mistake or the potential possibility of making a mistake. In this case, most respondents answered that they work in a public hospital (clinical, municipal) and do not yet have a specialization.

Reaction of the medical community to a mistake. The question regarding the stigmatization and/or exclusion of the second victim in the medical community, divided respondents into three groups. The majority of respondents (36% – 'no' and 'rather not') stated that there is no stigmatization and/or exclusion of second victims in the medical community, but they confirmed stigmatization and/or exclusion (28%, 'yes' and 'rather yes').), the remaining participants answered 'I don't know' (30%).

Care at work. The study shows that a significant number of respondents (46%) believe that the second victim does not feel taken care of at the workplace, of which as many as 20% stated a definite 'no' (Fig. 3). Only 10% of respondents answered that 'rather yes' – that second victims feel taken care of. Interestingly, 42% of doctors and dentists had no opinion on this subject.

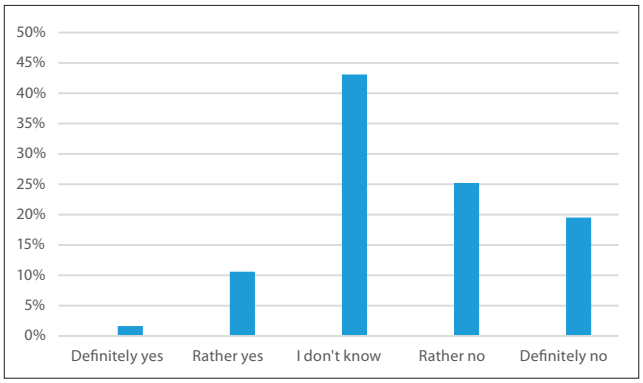

Figure 3. Do you think the second victim is properly cared for at your workplace?

PART III – EXPECTATIONS

Taking care of second victims. Among the surveyed doctors, 87% (59% 'definitely yes', 28%, 'probably yes') stated that such care is needed. 3% of respondents do not need psychological care; however, 8% of doctors and dentists did not comment on this issue (Fig. 4 and 5).

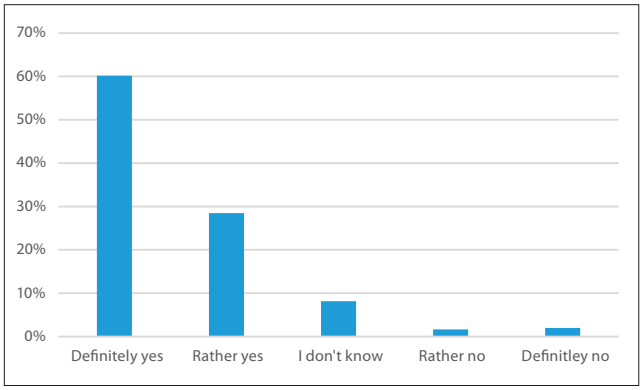

Figure 4. Should the doctor who made the mistake be covered by psychological support?

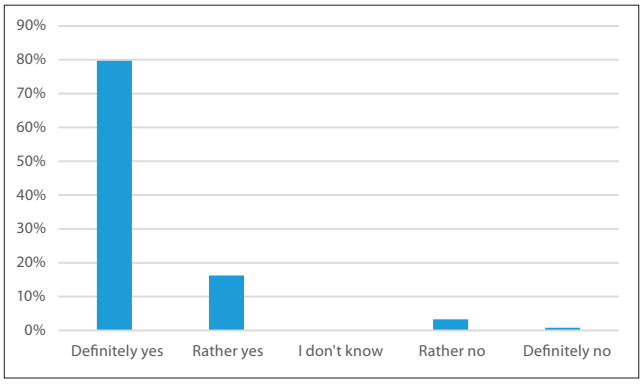

Figure 5. Should the doctor who made the mistake be covered by legal care?

In the surveyed group, the majority of respondents – 98% (78% – 'definitely yes' and 16% 'rather yes') (78% + 16% = 94%, not 98%), confirmed that a doctor who makes a mistake in connection with his work should be covered by legal guardianship. In the case of this question, most respondents answered that they work in a public hospital (clinical, municipal) and do not yet have any specialization. Among those answering this question, only 3% believed that such care was not likely, or was not needed by SVS. The doctors who answered thus already had a specialization in either anesthesiology or intensive care.

Training for second victims. The next question in the survey concerned training related to the topic of second victims (Fig. 6). The vast majority of respondents – 92% (66% 'definitely yes', 26% 'rather yes'), felt that they needed training in this area. Among the surveyed physicians and dentists, none of them definitely stated that training for the second victim is not needed, 3% stated that they are 'rather not' interested in training in this area.

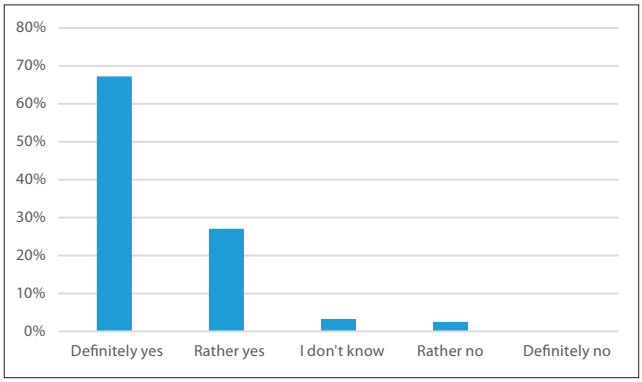

Figure 6. Do you think awareness of the second victims should be part of a doctor's training?

DISCUSSION

Modern medicine, based on science and computer techniques, allows for diagnosis and treatment that exceed the wildest expectations of previous generations. This arouses trust in patients for doctors and dentists, which easily turns into faith in their infallibility [3]. This observation by A. Wu is confirmed by the results of the research conducted a quarter of a century later by the authors of the current article. Almost 30% of Polish doctors and dentists undergoing specialization training in 2024 stated that there is no room for mistakes in modern medicine. It seems that not only patients, but also doctors themselves, are subject to this illusion of infallibility, although twice as many doctors still believe that in medicine – even modern medicine – mistakes can still be made. The attitude of infallibility present in 30% of young doctors and an additional 15% of those who did not express an opinion on this matter, may make it difficult for managers of medical entities to find an effective tool that will be used to support the second victim. Research by Burlison JD, Scott SD, Browne EK, et al. shows that the support resources provided by healthcare organizations are insufficient [18]. Without the cooperation of managers and medical staff, effective support will not be possible, and the healthcare entity may become the third victim [5].

Various support models can be found in the literature, including: the Scott model and forYOU programme [4], RISE programme – Resilience in Stressful Events [19], and Just Culture [9–10]). Current legislative changes regarding the quality of services provided and patient safety indicate that the Second Victim Experience and Support Tool (SVEST) is becoming an interesting tool for managers of medical entities in Poland. The creators of SVEST conducted a study

on a sample of 303 employees of a paediatric hospital in the United States. The results indicated that the respondents – second victims – 10.3% experienced physical suffering, 7.4% psychological suffering, 7.1% of respondents were absent from work after the event, and as many as 9.6% declared their intention to change their job or profession [18].

The SVEST study was also conducted in Europe and Asia, and among others, in Denmark [20], Italy [21], Turkey [22] and China [23]. No such research has been conducted in Poland, although the scale of the phenomenon is not marginal. During the pilot study for the current article, as many as 62% of respondents confirmed that they or one of their co-workers had been the second victim. This result is consistent with research conducted in the USA, where '58% of intensive care unit workers experienced second victim syndrome' [24]. Both studies also included a group of physicians who had neither themselves nor any of their colleagues experienced SVS. In the pilot for the current study, 21% of respondents, including 3% answered 'definitely not. However, if this result is combined with the fact that 20% of respondents answered 'I don't know', these are disturbing results. This answer may also be justified by doctors' lack of knowledge about SVS and the need to support such people [25]. This seems to be a result of the culture of blame and judgment adopted in Poland. Given the escalation of these events, it seems that it would be valuable and practical to take actions aimed at creating an institutional framework for the management disputes. Such actions have been introduced in Northern European countries, including Denmark, The Netherlands and Sweden, where a no-fault system has been introduced, which means that patient complaints can be considered at an earlier stage than a court hearing, and there are fewer cases against doctors [26].

Second-victim syndrome can impact a physician's performance and ability to provide safe and effective care to subsequent patients. The latter are described in the literature as 'fourth victims', i.e. patients who experienced an adverse event under the care of staff who had previously experienced the second victim syndrome [27]. Literature research clearly shows that due to the mistake made, second victims experience difficulties at the mental and physical level, such as insomnia, nausea, fatigue [18, 28–29].

Italian researchers reviewed 18 studies conducted in the United States, United Kingdom, Australia, Canada, Greece, Iran, Denmark, Sweden, Germany, Switzerland and Turkey, on psychological and psychosomatic symptoms in SVS. As a result, there were 11,649 medical workers (including doctors) who presented the following symptoms: 81% of respondents had disturbing memories: 76% reported fear and anxiety, 72% – regret and remorse, 70% – chronic stress, 56% feared future mistakes, 52% felt guilt, and 35% had difficulty sleeping [29].

The results of the current study indicate that the problem of SVS is present among Polish doctors, but the lack of care after the event may contribute to the predominance of the fourth victim phenomenon. As previously indicated, the majority of Polish doctors have experienced SVS or know someone who has experienced it, and a significant number (46%) of respondents in the current survey do not feel taken care of, including as many as 20% who indicated a complete lack of care after the event. Importantly, as many as 42% of respondents do not know whether the second victim is properly cared for at their workplace. It seems that in Poland this problem should be approached systematically. First, the implementation of clear and EBM-based procedures for providing health services. Secondly, the procedures are important for ensuring that medical workers can safely report any incidents related to occupational safety, and have a fair approach to liability for the incidents [10]. This is precisely what the respondents of the current study expect – as many as 95% of young doctors in training stated that procedures minimizing the risk of second victims are necessary. The lack of these procedures creates a situation in which the vast majority (96%) of young doctors and dentists in training feel exposed to stress related to a mistake, or the potential for making a mistake. Importantly, these were those working in a public hospital (clinical, municipal) and did not yet have any specialization. It is therefore clear that in Poland large medical entities where doctors undergo training do not provide support for SVS.

Perhaps this is the reason that it cannot be clearly stated that in their environment doctors and dentists are not afraid of stigmatization or exclusion as a second victim, 43% answered in the affirmative, but 28% answered negatively. A large group of surveyed doctors (30%) had no opinion on this subject, which is strange because the study involved not only people who are training, but also those working professionally. Similar conclusions can be found in the literature, which emphasizes that the problem of SVS is not stigmatization or fear of exclusion from the environment, but the loss of faith in one's own competence and choice of professional path, i.e. consequences of a psychological nature [18].

Research conducted among Australian nurses shows that when they realized the significance of an error, the study participants described experiencing shock, followed by a feeling of stress, and after the drop in adrenaline, a sense of guilt and self-accusation. These emotions were accompanied by embarrassment, anger at oneself, sadness and disappointment. However, the long-term consequences of such an event included insomnia, nightmares and thoughts about changing career [30]. Scott et al. itemizes six stages usually experienced by SVs [4, 31]. A study conducted on a group of American surgeons showed that one in 16 doctors had suicidal thoughts after making a mistake; while at the same time, only 26% of surveyed doctors sought psychological help or care from a psychiatrist [16].

The results of the current study indicate a different relationship. The group of surveyed doctors and dentists participating in specialist training placed first the need to provide legal care for the second victims, followed by psychological care. This is confirmed by previous surveys also conducted among doctors and dentists during specialization training (the 2019 survey covered 335 doctors, and the 2022 survey involved 509 doctors)[32]. Fears about legal proceedings brought by a patient or the family were declared by 81.6% of doctors surveyed in 2019, and 79.8% of doctors surveyed in 2022. In both 2019 and 2022, approximately 50% of respondents believed that a middle-aged doctor (aged 40+) would be the most likely recipient of a first lawsuit.

For this reason, in the current study, more participants appeared to understand the need for legal training and support than in psychology. In the pilot study, 98% of respondents believed that legal assistance after a doctor makes a mistake is necessary. It is not a coincidence that the doctors who answered 'no' to this question were already specialists in anesthesiology and intensive care. In Poland,

there are already a number of legal Acts in force which specify the practice of the profession of an anesthesiologist.

Regarding psychological care, 87% of doctors participating in the presented study stated that such care was needed for SVs; 8% of doctors and dentists, however, did not comment on this issue. The absence of an answer was probably due to the fact that in Poland there is a lack of information and psychological support for doctors after making a mistake. A similar situation exists in other countries, for example, in Spain, where health care workers rarely receive support in the form of training in dealing with the negative phenomena of the second victim syndrome; 13.4% of specialists used psychological advice, and 46.5% received support in the ward [14]. In the current study, the attitude of the surveyed doctors and dentists towards training aimed at preventing SVs should be assessed positively. The pilot study showed that 92% of respondents confirmed the need for training, and only 3% believed that such training was unnecessary. This means that the group of doctors training in various medical specialties is keenly interested in SV training.

To sum up, the pilot study showed that more than half of the young doctors and dentists in training who worked mainly in large clinical centres, confirmed that either they or one of their colleagues had been a second victim. Respondents had no doubt that implementing appropriate procedures to minimize the risk of second victims is necessary (95%). Moreover, Polish doctors do not feel taken care of after making a mistake. Moreover, those participating in the study declared that they preferred legal care to psychological care. The pilot study also showed that 92% of doctors and dentists declared their willingness to take part in SV training.

CONCLUSIONS

The study shows that systemic changes in Poland involving the establishment of a safety culture should take place in stages. Understanding the different stages of the process and providing appropriate support is crucial for the mental health of employees and their ability to continue working. For this reason, training for medical staff and management of medical entities – especially where young doctors are being trained – should be a key step in the procedure, in which the physicians themselves are very interested. The next step is to find suitable tools to support SVs. However, this is a difficult task due to the attitude of infallibility that characterizes up to 30% of young doctors in training. Consequently, it is not possible to adopt one of the tools already available, e.g., forYOU, RISE, or Just Culture. Support tools for SVs should be adapted to the realities of the Polish health care system and acceptable to medical professionals.

Strengths and limitations of the study. The strength of the study is its interdisciplinary nature, as participants represented over 40 medical specialties in various administrative regions across the country. In addition, CMKP in Warsaw is a centre for educating medical staff in Poland. The study was conducted among doctors and dentists participating in compulsory courses for doctors undertaking specialization training.

The analysis of data obtained covers a wide spectrum, combining various perspectives and clinical contexts, which allowed assessment of the perceptions of the surveyed group on the problem of SV in Poland. Another, possible limitation is that the study group consisted of doctors and dentists undergoing specialization training, most of whom were employed in public hospitals where most doctors receive their specialist training. This may have limited the possibility of verifying and interpreting the data.

Conflict of interest. The authors declare no conflict of interest.

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