



Research article

STUDENTS' PERCEPTION OF POLICE READINESS TO RESPOND TO DISASTERS CAUSED BY A COVID-19 PANDEMIC

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Abstract: The COVID-19 pandemic has pointed out the need to examine the role of the police in emergencies caused by various infectious diseases as much as possible. The aim of the study is to determine the perception of students of the University of Criminal Investigation and Police Studies, who are studying to become police officers, about the actions of the police in confronting the COVID-19 pandemic, i.e. the readiness of police officers to respond in the current as well as in the future pandemics. The research used a modified survey questionnaire from the previous research. The survey was anonymous. All respondents voluntarily agreed to participate in the research conducted from May to June 2022. The research data were collected from 105 students of the University of Criminal Investigation and Police Studies. According to the respondents, the police officers did well in the new circumstances given the lack of protective equipment and insufficient training for such situations. It was assessed that the police are one of the key entities in opposing the COVID-19 pandemic. Research findings can help police organizations plan their work during infectious disease pandemics. Above all, in the planning of the procurement of protective equipment, in education of future police officers by introducing new topics in training related to the work of the police in infectious disease pandemics, such as improving communication with citizens, and its implementation in online format. The findings of the study can be an incentive to other researchers as a basis for further research in the field of police work in emergencies because there are few of them in the scientific literature, and those related to police work in a pandemic are almost non-existent.

Keywords: students, perception, police, disaster, pandemic, COVID-19

1. Introduction

Although we are gradually beginning to forget consequences of the COVID-19 on society, the announcements of scientists have informed us we should not relax, both because of the COVID-19 itself, and because of future infectious disease pandemics. We have to emphasize that the police were one of the important subjects in helping the population to overcome this pandemic during the last two years (Janković, 2021; Janković & Cvetković, 2020; Kekić & Milenković, 2020). Members of the police were often exposed to infection of the said disease, and were under enormous stress during the pandemic (De Camargo, 2021; Li, Cheung, Sun, Cheung, & Zhu, 2021). During the first month of the COVID-19 pandemic, around 2.34% of police officers of the Ministry of Interior of the Republic of Serbia were infected or in quarantine (Janković & Cvetković, 2020). During the same period, in New York, there were around 4% of police officers infected and one out of six police officers was in quarantine (Ashby, 2020), while in Detroit, almost 1/3 of employees were in quarantine (Hansen & Lory, 2020). The number of deaths among police officers from COVID-19 during 2020 in the US accounted for 62% of all deaths of the aforementioned population (Violanti, Fekedulegn, McCanlies, & Andrew, 2022).

Members of the police are normally exposed to great stress during engagement in emergencies (Adams & Anderson, 2019; McCanlies, Gu, Andrew, & Violanti, 2018; Domingo & Ormila, 2022; El-Mougher, 2022; Odero & Mahiri, 2022; El-Mougher & Jarour, 2022). Stress arises because of situations in which police officers encounter a large number of the dead and injured persons, severe destruction, and the like. However, there could be a more important factor due to which the police officers are under considerable stress, the fact they are not prepared to respond in emergencies, especially those caused by infectious diseases, i.e. they have not received adequate training, in contrast to the regular police tasks for which they are trained (Cvetković, Pavlović & Janković, 2021; Janković & Cvetković, 2020). There is a question how ready the police are to react in such situations. Previous experiences have shown that the police are insufficiently prepared for the challenges associated with large-scale disasters, such as floods, earthquakes, and the like (Janković, 2021). At this point, questions that arise are what role members of the police played and whether they successfully performed their tasks during the COVID-19 pandemic. The professional and scientific public could give the assessment of their role, but sometimes it is important, especially in situations where there is still the lack of scientific research as well as complete information, to hear from the public that can contribute to solving such problems as the current one (Sergey & Gennadiy, 2022; Shibru et al., 2022; Dukiya & Benjamine 2021; Adamović et al, 2021).

Literature review

Until recently, there were not many studies in the literature related to the role and work of the police in emergencies. The small number of existing studies did not deal with emergencies caused by epidemics or pandemics of infectious diseases, but those caused by hurricanes (Deflem & Sutphin, 2009; McCanlies et al., 2018; Rojek & Smith, 2007; Varano & Schafer, 2012), floods (Milojković et al., 2015; Milojković, Stevanović, Milojević, Vučković, & Janković, 2014; Mitrović & Vučković, 2016) and terrorist acts (Mendonça, Webb, Butts, & Brooks, 2014; Mladjan & Cvetković, 2012; Sommera, Njåb, & Lussandc, 2017; Sukabdi, 2016; Varano & Schafer, 2012). Until the COVID-19 pandemic, there were few studies related to the police response to emergencies caused by infectious diseases. Thus, at the beginning of the 20th century, a number of studies related to police actions during influenza pandemics, which represented a great challenge for the police (Brito, Luna, & Sanberg, 2009; Luna, Brito, & Sanberg,

2007). Areas where police forces may encounter problems during infectious disease pandemics have been identified, and in this regard, police units must be prepared in three main areas: the police unit preparation (maintaining operational continuity – continuing work in new circumstances), protection of police officers (education about disease transmission, use of protective equipment, vaccination, treatment) and community protection (maintenance of public order). The adequate police planning is crucial for a successful response in such situations (Cvetković & Janković, 2020; Janković, 2021).

With the outbreak of COVID-19 in 2020, much more research has been conducted on this topic in all areas of the society. This also applies to policing in the newly created circumstances. One of the first such papers (Janković & Cvetković, 2020) examined the perception of citizens about the police behaviour at the beginning of the pandemic. The research showed that the police played an important role in the fight against the COVID-19 pandemic and that citizens had confidence in the police, but also that police officers had not been sufficiently trained to work in such emergencies. Janković (2021) reached similar conclusions, with the fact that the research did not refer exclusively to the actions of the police during COVID-19, but to all pandemics of infectious diseases, both existing and the future one. Furthermore, the study conducted in Israel (Perry, Jonathan-Zamir, & Factor, 2022) has indicated that the police had strong support from citizens in the initial phase of the COVID-19 pandemic (April 2020). However, the same survey showed that the longer the pandemic lasted (December 2020), the less support the police got from citizens. At the beginning of the COVID-19 pandemic, the study indicated changes in telephone calls made to the police compared to the pre-pandemic period (Ashby, 2020). Namely, the number of calls to the police, contrary to previous expectations, dropped significantly during the first few weeks. While there was a decrease in the number of calls related to traffic accidents, on the other hand, there was an increase in the number of calls related to the discovery of dead bodies, because there was an increase in mortality due to the outbreak and spread of COVID-19. Changes in police actions were noted in field actions while dealing with certain types of crime. Thus, in Sweden, during the first 10 weeks of the pandemic, there was a decrease in the general crime rate as well as in certain types of crime such as assaults, pickpocketing, burglaries, while drug-related crime remained at the same level (Gerell, Kardell, & Kindgren, 2020). Similar results were observed in Los Angeles (Stickle & Felson, 2020) where the overall crime rate decreased by about 15%, particularly in robbery (–24%), shoplifting (–14%), theft (–21%) and bodily injuries (–11%). However, burglary, domestic violence, vehicle theft and homicide remained statically unchanged. All the changes in policing had a negative impact on the psychological health of police officers (De Camargo, 2021; Li et al., 2021).

Several studies indicated changes in police work made during the COVID-19 pandemic (Gaub, Cohen, & Davis, 2021; Janković, 2021; Janković & Cvetković, 2020; Kekić & Milenković, 2020). Now, with the semblance of normality, we have to decide which modifications and innovations should be retained, adopted and implemented in further work (Gaub et al., 2021). Researchers have identified four areas of adaptation to policing during the pandemic: 1) safety measures, 2) roster and posting changes, 3) impacts on training, and 4) innovation and planning (Gaub et al., 2021). Safety measures refer to wearing protective masks, gloves, keeping a certain distance from citizens, etc. (Janković & Cvetković, 2020). Another measure of adjustment in policing was related to roster and posting changes. There, it was primarily related to the drastically reduced mutual contact between police officers that was carried out through different shift work. Moreover, the redistribution pertained to the previous type of duties that the police officers performed, that is, they began to perform new, non-standard police duties. For example, the police were in charge of searching for the contacts of infected persons, so that such persons could be put into self-isolation, the suppression of the illegal

sale of medical equipment and consumer goods was intensified; they regulated queues in front of shops, prohibited gatherings of people, etc. Regarding the impact on training, recent research suggests that police educational institutions have experienced a number of impacts related to the COVID-19 pandemic. This means that different police educational institutions have responded differently not only to the challenges of the pandemic, but also to their willingness to embrace more online and alternative strategies for curriculum delivery (Davies & Al Sharefeen, 2022; White, Schafer, & Kyle, 2021).

Method

In order to assess students' perception of the role of the police in the emergency caused by the COVID-19 pandemic, a modified survey questionnaire from an earlier study conducted by Janković and Cvetković (2020) was used for the research. A structured questionnaire developed by using close-ended, multiple-choice questions, and 5-point Likert scale questions (1 for strongly disagree to 5 for strongly agree) was used in the study. Within the first part of the questionnaire, there were questions concerning demographic and socio-economic characteristics of respondents, while the second part contained questions about the role of the police in the COVID-19 pandemic. The survey was anonymous. All respondents voluntarily agreed to participate in the research conducted at the University of Criminal Investigation and Police Studies in Belgrade. Data for the research were collected from 105 students of the University of Criminal Investigation and Police Studies. The research was conducted from May to June 2022.

In this study, the demographic characteristics of respondents were calculated using descriptive statistics. To examine the relationship between assessment of the role of the police in an emergency due to the COVID-19 pandemic and dichotomous independent variables, an independent samples T-test was used. The analysis of variance (one-way ANOVA) was used to examine the relation of different groups of independent variables and variables on the student's perception of the police. All tests were two-tailed, with a significance level of $p < 0.05$. Statistical analysis was performed using SPSS Statistic 26.0.

Socio-economic and demographic characteristics

Bearing in mind the complexity of conducting the research in the state of emergency conditions, the survey respondents, 59 % women and 41 % men, were not representative of the gendered stratification of the country that registers 51.3 % of women and 48.7 % of men (Janković & Cvetković, 2020). The average age of respondents was 20.04 years of age, and the respondents who were 20 (42; 40 %) and 19 (36; 34.3 %) years of age were the most represented. Most of the respondents were first-year students (51.4%), then second-year (37.1%) and third-year students (11.4%). Most of respondents attend the academic studies of criminalistics (87.6%), while a smaller number of respondents attend the academic studies of information technology (12.4). Only one respondent had specific education in the field of emergencies. About a quarter of respondents have a family member employed in the police. A small number of respondents (32.4%) were vaccinated against the corona virus. On the other hand, 61% of respondents were not infected with the corona virus (Table 1.).

Table 1 Basic socio-economic and demographic information of respondents (n = 105).

Variable	Category	Frequency (%)
Gender	Male	62 (59.0)
	Female	43 (41.0)
Age	19	36 (34.3)
	20	42 (40.0)
	21	16 (15.2)
	22	9 (8.6)
	23	2 (1.9)
Year of studies	First	54 (51.4)
	Second	39 (37.1)
	Third	12 (11.4)
Type of studies	Undergraduate Academic Studies of Criminalistics	92 (87.6)
	Undergraduate Academic Studies of Information Technology	13 (12.4)
Education on emergencies	Yes	1 (1.0)
	No	104 (99.0)
Family member in the police	Yes	27 (25.7)
	No	78 (74.3)
Vaccinated	Yes	71 (67.6)
	No	34 (32.4)
COVID-19 contamination	Yes, once	34 (32.4)
	Yes, more than once	10 (9.5)
	No	61 (58.1)

Results

The obtained results indicate that 61.9% of respondents believe that police officers of the Ministry of Interior wore protective face masks in contact with citizens during the COVID-19 pandemic ($X=3.54$), and at the very beginning, 71.4% of respondents believe ($X=3.89$). Contrary to such high percentages related to wearing masks, there were different responses in case of wearing protective gloves. Only 16.2% ($X=2.03$) of the respondents stated that police officers wore protective gloves during the pandemic, while 23.8% ($X=2.28$) of the respondents believe they wore them at the very beginning. In addition, 40% of respondents stated that police officers had all the necessary personal protective equipment during the pandemic, and 25.7% ($X=3.08$) were not sure if police officers had the specified equipment.

When it comes to preventive measures, 44.7% ($X=3.15$) of respondents state that police officers kept the distance of 1.5-2 m when contacting citizens during the pandemic, while 56.2% ($X=3.48$) of respondents believe it was done at the beginning. In contrast, 46.6% of respondents state that police officers are generally well trained to respond to the COVID-19 pandemic ($X=3.30$). In addition, about 56.2% of respondents point out that during the pandemic, police officers should have spent more time talking to people about their daily problems ($X=3.45$). The largest number of positive responses from the respondents (73.3%) of all the questions asked, stated that during the pandemic, police officers should have spent more time talking to citizens to inform them and clarify the measures the state was taking to combat the disease ($X=3.92$). A large percentage (71.4%) of the respondents had a positive assessment of policing during the pandemic. A large number of respondents (66.6%) believe that police officers, after health workers, have the most important role in the society in combating the corona virus ($X=3.79$) (Table 2).

Table 2 Results of a descriptive analysis of students' perception about police (n = 105)

	Mean	Std. Deviation	Yes (%)	Not Sure (%)	No (%)
Police officers wore masks during the pandemic	3.54	1.225	61.9	16.2	21.9
Police officers wore masks at the beginning of the pandemic	3.89	1.203	71.4	12.4	16.2
Police officers wore gloves during the pandemic	2.03	1.220	16.2	9.5	74.3
Police officers wore gloves at the beginning of the pandemic	2.28	1.431	23.8	13.3	62.9
Police officers have all the equipment against COVID19	3.08	1.246	40	25.7	34.3
Police officers kept distance during the pandemic	3.15	1.343	44.7	21.9	33.3
Police officers kept distance at the beginning of the pandemic	3.48	1.256	56.2	21	22.9
Police officers are generally well trained for the COVID19 pandemic	3.30	1.119	46.6	26.7	26.9
More talks with citizens about everyday problems	3.45	1.263	56.2	21.9	21.9
More talks with citizens to inform them about measures	3.92	1.107	73.3	16.2	10.5
Police officers performed their job well during COVID19	3.94	1.073	71.4	20.0	8.6
After health workers, police officers have the most important role in combating COVID19	3.79	1.174	66.6	18.1	15.2

T-test of independent samples was used to examine the relationship between the assessment of the role of the police in an emergency due to the COVID-19 pandemic and dichotomous independent variables. Using the mentioned test, a preliminary check of all dichotomous independent variables was performed. The only statistically significant correlation was between gender and the assessment of whether it was necessary to talk more with citizens about everyday problems during the pandemic (male - $M = 3.18$, $SD = 1.39$; female - $M = 3.84$, $SD = 0.95$; $t(103) = -2.90$, $p = 0.005$). The results indicate that female respondents believed that during the COVID-19 pandemic, police officers should have paid more attention to talking with citizens about their everyday problems.

One-factor analysis of variance (ANOVA) was used to examine the relationship between the assessment of the role of the police in an emergency due to the COVID-19 pandemic and continuous variables. Preliminary analyses established a connection between only one continuous dependent variable (assessment of whether police officers wore masks to a sufficient extent during the COVID-19 pandemic) and one independent variable with four groups of respondents (1. respondents who had no contact with police officers, 2. who had contact only once, 3. who had contact twice and 4. who had contact with police officers several times during the COVID-19 pandemic). A one-factor analysis of variance was used to examine whether the respondent's contact with police officers during the COVID-19 pandemic had an impact on the assessment of whether police officers wore masks sufficiently during the said pandemic. The aim was to examine whether this assessment have been distinguished depending on whether they had contact with the police officers. The homogeneity of variances test was used to examine the equality of variances in the results for each of the four groups. Considering the results of Levene's test, the assumption of homogeneity of variance was not violated. According to the presented results, there is a statistically significant difference between the mean values of the mentioned groups ($F = 4.55$, $p = 0.005$). Post hoc comparisons using Tukey's HSD show that the recorded mean value of whether police officers wore masks sufficiently during the pandemic was statistically significant ($p = 0.05$) and different from each other in subjects who did not have contact with police officers ($M = 3.28$, $SD = 1.24$) and respondents who had contact with police officers more than once ($M = 3.94$, $SD = 1.09$)

during the COVID-19 pandemic. Judging by the results obtained, the assessment of whether police officers sufficiently wore masks during the COVID-19 pandemic is highest among respondents who had several contact with police officers during the mentioned pandemic.

Discussion

While presenting the basic socio-demographic data, it was observed that only 1/3 of the respondents were vaccinated. This information indicates that young people do not trust vaccines. Indirectly, it can be concluded that they do not have enough confidence in the state authorities that distribute vaccines. Young people definitely have stronger immunity, however, during the pandemic, a large number of young people died from the mentioned disease.

Regarding preventive measures [wearing masks ($M = 3.89, 3.54$), gloves ($M = 2.28, 2.03$) and keeping distance ($M = 3.48, 3.15$)], it is obvious that members of the police took the mentioned measures more intensively at the beginning of the pandemic. Although there was less protective equipment at the beginning of the pandemic than later, the measures were applied less and less as the time went on. Several things contributed to this. Primarily it was the mental fatigue, because this pandemic had been going on for more than two years, without its end in sight. Another reason was the availability of vaccines, medicines, and medical facilities, so police officers became more relaxed. The obtained results are different from the similar research conducted by Janković and Cvetković (2020) and are rather less favourable than the aforementioned research. Respondents in the research conducted by Janković and Cvetković rated police officers taking preventive measures better [wearing masks ($M = 4.25$), gloves ($M = 4.01$) and keeping a distance ($M = 3.25$)]. We have to emphasize that the research was conducted after the first month of the pandemic, when citizens were most afraid of infection, which could have influenced citizens' perception.

Additional statistical analysis revealed a statistically significant correlation between gender and the assessment of whether it was necessary to talk more with citizens about everyday problems during the pandemic (male - $M = 3.18$, female - $M = 3.84$). The results indicate that female respondents believed that during the COVID-19 pandemic, police officers should have paid more attention to talking to citizens about everyday problems. The explanation lies in the very nature of the female population, which is normally more sensitive than men are, therefore this trait influenced the obtained results.

The second statistical significance was determined for the variable – contact of respondents with police officers during the COVID-19 pandemic, and the variable – respondents' assessment of whether police officers wore masks sufficiently during the pandemic. The obtained results indicate that the assessment of whether police officers wore masks sufficiently is highest among respondents who had more contact with police officers during the pandemic, and is significantly lower among respondents who had no contact with police officers. Respondents who had contact with police officers had more insight into how they perform their duties and whether they use personal protective equipment, including protective masks.

In relation to the previous research conducted by Janković and Cvetković (2020), respondents in the current survey believe to a lesser extent that police officers have all the necessary equipment (3.08:3.95). In contrast, respondents believe largely than in the mentioned survey that police officers are trained to react in the COVID-19 pandemic (3.30:2.81) and that police officers should spend more time explaining the measures taken by the police during the COVID-19 pandemic (3.92:3.09).

Regarding the respondents' trust in the police during the COVID-19 pandemic, the results indicated that it was slightly lower than in the previous survey (3.94:4.33) (Janković & Cvetković, 2020). The explanation can be found in the different timing of the research, as the previous research was conducted at the beginning of the pandemic, while the current research was conducted after two years, during the apparent calm of the situation. Fear among citizens at the beginning of the pandemic was great. It was greater than today. At that time, citizens could only turn to the state, and indirectly to the police as the state representative. As the danger partially passed, citizens' trust in the police declined. The obtained results are consistent with the research conducted in Israel (Perry et al., 2022) in which it was shown that the police had strong support from citizens in the initial phase of the COVID-19 pandemic (April 2020), while later, as the pandemic lasted longer, this support has fallen (December 2020).

Similar to the previous research (Janković & Cvetković, 2020) respondents believe that police officers, after medical workers, have the most important role in combating the COVID-19 pandemic.

Conclusion

The COVID-19 pandemic was and remained a new challenge for police organizations. Therefore, they had to change the way they operate and adapt it to the new circumstances. According to the respondents, the police officers, given the lack of protective equipment and insufficient training for such situations, coped well in the new circumstances. It was assessed that the police are one of the key entities in opposing the COVID-19 pandemic. Research findings can help police organizations plan their work in possible future pandemics of infectious diseases. First, in planning the procurement of additional protective equipment and keeping it in stock, and not to procure it afterwards, such as happened in case of this pandemic. Moreover, training programs should be changed in police education; new topics related to policing in pandemics of infectious diseases should be introduced in training. Police education must be adapted to work in epidemics, primarily to be prepared for online training as much as possible. It was observed that respondents believe that police officers should talk more with citizens about their everyday needs and provide more information about the measures they undertake. Therefore, in police training, more time should be devoted to the topic of communication, both in everyday conditions, and especially in emergencies, because when there is great fear among the citizens, the police is the first they turn to for information and help.

The limitation of this research is that it was conducted on only 105 students of the University of Criminal Investigation and Police Studies in Belgrade, aged between 19 and 23. The future research should be conducted with a larger number of respondents of different ages from the general population. However, the findings of this research can help us understand the state and improvement of policing in emergencies caused by pandemics of infectious diseases and be an incentive to other researchers as a basis for further study of this topic. There are very few such studies in the scientific literature, and those related to the work of the police during the pandemic are almost non-existent.

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