

Police use of firearms in Germany: A review of practice

Clemens Lorei¹ and Kristina Balaneskovic

ABSTRACT

The police use of firearms in Germany has scarcely been researched empirically, which leads us to a remarkable research gap. It is questionable whether scientific findings from other countries can be transferred to Germany. Therefore, in a survey, findings were obtained about the situation, the person shot at and the shooter, aspects of the shooting (as well as target hits, ammunition impact, and the aftermath, also the subjective experience and recollection, which are not part of this article) of the use of firearms. Participants in the survey were police officers from the German state police who shot at a person between 2013 and 2017.

In this regard, situational backgrounds have been researched, which show that police use of lethal force against individuals does not occur in specific situations. Overall, police use of firearms can occur at any time of the day or night in which lighting conditions can vary. Overall, it can be stated that the situational aspects of firearm use vary. This means that training and further education of police officers must be optimised in this respect and offer a wide range of the above-mentioned aspects. Lastly, the majority of the persons shot were armed, mentally ill, or drug-impaired, which brings not only an important aspect toward research, but also further education and training of police officers.

Keywords: Use of firearms, use of lethal force, police-involved shooting, violent police encounters, police training

INTRODUCTION

In contrast to other European countries, all German police officers are authorised to carry a firearm, not only to protect themselves but also the citizens. This is what police officers and citizens rely upon. The police use of firearms is one of the most intensive forms of exercising the state's monopoly on the use of force and represents the most serious intervention measure that a police officer can carry out. It is therefore considered to be of immense importance, and namely from:

- A legal perspective: A complex situation must be assessed in seconds and subsequently answered for.
- A societal perspective: Citizens endow the police with extensive powers of intervention and trust them to use them carefully, responsibly, and correctly. As a result, the public also has a right to both transparency and justification. If citizens suspect misconduct, it can have dramatic consequences, as recent protests and discussions following the death of George Floyd in the U.S. show (Campbell, January 15, 2021; Skoy, October 20, 2020).

¹ Corresponding author: Clemens.Lorei@hfpv-hessen.de

- A situational perspective: The situations in which police firearms use occurs should be examined. Here, for example, the sequence of events is to be analysed. From external circumstances such as the locations, times of day, and lighting conditions to the individuals shot.

In contrast to studies in the U.S., there is a remarkable research gap regarding police use of firearms in Germany (Kesic & Thomas, 2020). However, knowledge of these fatal events is also low internationally (Kesic & Thomas, 2020). Comparisons of the situation in Germany with that in other European countries or worldwide were made only sporadically (Timmer & Pronk, 2011; Osse & Cano, 2017). Although firearms operations in Germany are recorded statistically, there is no further scientific analysis and discussion. The likelihood of shots on target in different operational positions and at different distances are unknown. Therefore, important factors such as the immediate, short-term impact of gunshots can only be estimated, which leads us to the problem that many other facts are just guessed at or findings from other countries such as the U.S. are used. Another result of the lack of research in this field is, that it is uncertain or even highly questionable whether the transfer is sufficiently permissible (White, 2006).

BACKGROUND

There is no consensus in the German literature regarding police use of firearms. On the one hand, legal papers discuss the situation of the potential use of a firearm from both the police officer's perspective as well as the citizen's perspective on an abstract level. While general legal papers on the use of firearms by the police, which discuss shooting on an abstract level, are sufficient (e.g. Ley & Burkart, 2001; Neuwirth, 2006), analysis of concrete or simulated shooting situations are rather rare (see Bäuerle, 2012; Lorei, Stiegler & Bäuerle, 2014). However, this difference is not marginal; rather, the inclusion of realistic facts only reveals the entire complexity of the matter. Thus, for self-defence to be legal (Section 32 of the German Criminal Code [StGB]; corresponding legal formulations can be found in the police laws), the law requires that there must be a "current attack". This means that an attack is imminent, is currently taking place, or is still ongoing. But what exactly does "imminent" mean in general and what is it like when there is a threat with a firearm? Do you have to recognise muzzle flash? Do you have to wait for a projectile to impact as well (maybe it is just an imitation firearm)? Or is the twitching of the weapon bearer enough from which one concludes that he or she will fire? Does the potential attacker have to have the firearm in his or her hand, does the barrel of the weapon have to point at an individual? Baller (2018) discusses this in legal terms for holding and threatening with a knife, which in no way can automatically justify the use of firearms. The same applies to the assessment of the "proportionality" of the use of firearms by a police officer. According to the law, this police measure is only justified if it is "proportionate". This means that it must be "suitable", "required" and "appropriate". It is "suitable" if the aim of the measure (e.g., saving lives) can be achieved with the use of firearms. Accordingly, it would not be suitable if the shot cannot prevent a perpetrator from killing a victim anyway. The use of firearms is "required" if no other measure is available that can also achieve the target and it is only possible with one shot. The use of firearms is "appropriate" if its intensity fits the purpose of the measure. A potentially fatal shot can therefore be proportionate to save another life, but not to force the return of stolen property. To decide on the "proportionality" of firearm use, one also needs to know the shooter's probability of being hit (cf. Lorei, Stiegler & Bäuerle, 2014).

Indeed, if a shooter is unlikely to hit as well, firearm use is not appropriate. It can be even less proportionate if it is not certain that the shooter will also hit the correct body region of the attacker and thus cause inappropriately severe damage. This also applies to the endangerment of others. That is if a shooter does not hit an attacker but an innocent bystander.

Regarding the tactical and situational side of the police use of lethal force, there is an even smaller scientific basis. Thus, there is no scientific reappraisal of the cases of police shootings in Germany. There is only a very simple and not very detailed statistical list, which is published annually by the Conference of Ministers of the Interior (see Table 1). From this, however, tactical and other aspects for the method of training and further education for police officers can hardly be read. Likewise, no problem areas are identified that could serve to optimise preparation for the use of firearms.

Ultimately, the overall level of research on the police use of firearms in Germany is unsatisfactory. A transfer of the analysis from other countries can only offer a very rough orientation, since completely different deployment concepts are practiced there (Noppe & Verhage, 2017). In Germany, for example, a police patrol unit always consists of at least two police officers, while in the U.S., for example, police officers also patrol individually. In some countries, all police officers carry a firearm, while in other countries only a part of the police force is equipped with firearms (Lorei & Balaneskovic, 2020b). Other equipment such as tasers, pepper spray, and batons also varies from country to country (Lorei & Balaneskovic, 2020b).

The risk of the situation in the countries discussed above does not appear to be identical either. For example, Osse and Cano (2017) find a high correlation between the rate of people killed by police use of firearms and the overall homicide rate in a country ($r=.890$) or the homicide rate with firearms ($r=.941$). However, murder rates vary in different countries. Parent (2006) also showed this in a comparison of the United States with Canada. Here, the U.S. showed high homicide rates, as well as a very high number of police use of lethal force. In contrast, both statistics are significantly lower in Canada.

Often, research on police use of firearms in other countries focus on other factors whose significance is not centred in Germany. For example, race and ethnicity play a major role in firearm use in the USA (Klahm & Tillyer, 2010). In Germany, their relevance in research of police use of lethal force has so far been minor. White (2006) summarises research findings on influences of cultural embeddedness, crime situation, and formal and informal characteristics of organisations and concludes that these significantly influence the use of lethal force. Accordingly, the transfer of research findings from other countries, e.g., U.S. research findings, appears to be critical and comparisons difficult.

Statistics on the firearms use by police against persons in Germany

Official data (see Table 1) on the use of firearms in Germany are published by the Conference of Interior Ministers as a press release. They only provide a rough classification of the type of shot (warning shot, shot at property, shot against persons) as well as the consequences. This means that hardly any details such as hit rates, ammunition impact, situational aspects,

interaction dynamics, personal characteristics, etc., which would be necessary for a deeper understanding and training optimisation of police officers, can be noted.

	Self-defence/help in an emergency Risk to life and limb in other cases	Crime prevention	Thwarting flight in the event of suspicion of a crime	Thwarting flight in the case of prisoners	Prevention of violent escape of a prisoner	Firearm use against persons in a crowd out of which violent acts were committed
Warning shots	29	3	12	5	0	0
Firearm use against items	7	0	12	0	0	0
Firearm use against persons	54	2	0	0	0	0
Consequences:						
Fatalities	11	0	0	0	0	0
of which bystanders	0	0	0	0	0	0
Injured persons	32	2	0	0	0	0
of which bystanders	0	0	0	0	0	0
Inadmissible firearm use						
Against items	7					
Against persons	2					
Consequences						
Fatalities	0	0	0	0	0	0
of which bystanders	0	0	0	0	0	0
Injured persons	2	0	0	0	0	0
of which bystanders	0	0	0	0	0	0

Table 1: Cases of firearm use by the police for the year 2018 (Source: Press notice of the Conference of Interior Ministers).

In contrast, detailed reviews and analysis can be found for the USA, for example. The FBI publishes annual statistics and analysis of killed police officers (Federal Bureau of Investigation, no date), the New York Police Department makes its analysis of firearms use available online (See Bratton, 2014; New York City Police Department, 2019), New Jersey publishes a "use of force report" online (New Jersey state and municipal police departments, 2018).

Number of police firearm uses

While the majority of police firearms use in Germany is to kill dangerous, sick, or injured animals (13,711 cases in 2018 in Germany), persons were shot between 40 and 75 times annually by the police between 2013 and 2018 in Germany (Press notice of the Conference of Interior Ministers 2014-2019; cf. Lorei, December 12, 2020). Yet the vast majority of these police uses of firearms take place in situations in which a threat to life or limb to oneself or others should be averted with the shot. Much less often people are shot at to stop their escape or rarely to prevent a crime. Not analysed are how many individual shots were fired in each operation. The New York City Police Department (2019), on the other hand, does disclose this, reporting that a total of 107 rounds were fired in 17 firearm uses. Yet in 23% of the cases, there was only one shot fired. The majority of 41% fired 2-5 rounds per incident. 6-10 or more than 10 projectiles were fired in 18% of the cases. Corresponding data is missing in Germany.

Consequences of the police use of firearms use against persons

Between 2013 and 2018, between 8 and 14 people died each year from police firearms, one of them being an innocent bystander (Press notice of the Conference of Interior Ministers 2014-2019; cf. Lorei, December 12, 2020). In the same period, between 20 and 39 people were shot and injured by the police. The police officers also injured bystanders four times. In 8 to 14 cases per year, no one was hit. For comparison, White (2006) describes 271 firearm uses in Philadelphia between 1987 and 1992, where 14% ended fatally (n=38), 35% ended with an injury to the person shot (n=94), and 51% missed their target (n=139). The New York City Police Department (2019) reports 5 fatalities (29.4%) and 10 injuries (58.8%) as a result of 17 firearm uses related to conflicts with citizens. In this regard, the number of police shootings in 2018 in New York City can be considered a historic low, as police officers shot people 23 times in the jurisdiction in 2017 and 37 times in 2016, a significantly higher number.

Aspects of the operation: situation – the shooter – person shot

The information to be taken from the statistics of the Conference of Interior Ministers does not say much about the actual situation. Even less can be gleaned from the statistics about the characteristics of the shooters or those shot at. Since there is no other scientific analysis of the cases, the only thing left to do is to try to transfer findings from other operational situations. The research on violence against police officers in Germany (e.g., Ohlemacher, Rüger, Schacht & Feldkötter, 2003; Ellrich & Baier, 2014) should be considered first. These offer possible approaches to this. However, it is completely unclear whether and how the operational situations and processes are similar or different and therefore a transfer seems possible.

An essential aspect that seems transferable, could be the physical and mental state of the police officer's counterpart. Ellrich & Baier (2014) see an alcohol and drug influence as one of the most significant risk factors for violent assaults against police officers. According to their

findings, people in exceptional psychological situations are increasingly likely to initiate an attack. However, differentiation must be made according to clinical picture and symptoms (Nedopil, 2016). Diederichs (2016) cites that 9 of the 10 people shot by the police in 2015 in Germany were mentally ill or reported to be in a state of mental emergency. Baller (2018) reiterates that persons shot by police officers in previous years have often been mentally ill or in a state of mental distress. Thomas (2020) also highlights the problematic nature of individuals with mental illnesses around police contact.

Aims of this study

The international and especially the German research situation on police firearm use appears to have a research gap and deserves more scientific attention (Kesic & Thomas, 2020). It is necessary to go beyond the consideration of individual factors (Kesic & Thomas, 2020). Aspects of the study presented here attempt to develop empirical findings for the first time in Germany. Initially, the focus is on the dynamics of the situation of police use of firearms. The aim is to find out how such situations develop and how escalation takes place. Since events are often reported to occur very quickly (Kesic & Thomas, 2020), it is also of particular interest how much time passes before the point of maximum escalation is reached. Of particular interest is to find out if there are situations that are associated with increased risk. Are there types of operations that are typical for gunfire, or do they occur in all types of operations? Are there days and times when shooting is more likely to occur? Under what lighting conditions do such events occur? The attackers are also of particular interest. Do findings from other countries confirm that it is primarily younger men who are shot by police (Kesic & Thomas, 2020)?

METHOD

Neither the scarce official statistics nor files on incidents are suitable for analysing police use of firearms in Germany. Files that originate from investigations or court proceedings are difficult to access, and sometimes do not contain all the information that is of interest in the research here. Therefore, the empirical basis of this study was a survey of police officers of the state police forces of Germany who used a firearm against persons between 1 January 2013 and 31 December 2017. This excludes warning shots and firearm use against property (e.g., vehicles). According to the statistics of the Conference of Ministers of the Interior, this was a total of 265 cases in these 5 years (press releases of the Conference of Ministers of the Interior 2014-2019; c.f. Lorei, December 12, 2020). The period between 01.01.2013 and 31.12.2017 was chosen to ensure that all investigation and court proceedings were completed.

Since the shooters are not known and therefore cannot be contacted directly, the 16 Ministries of the Interior of the German states were first contacted postally and informed about the research project. Furthermore, this letter asked to forward a questionnaire to the police officers who had a firearm use against persons between 01.01.2013 and 31.12.2017. All Ministries of the Interior have information about the shooters, as each firearm incident is investigated, and a file is created there. Three Ministries of the Interior responded to this letter that they do not support the research project and refuse to forward the questionnaires. Therefore, it is unknown

how many shooters could not be reached because of the refusal, as this information cannot be read from the statistics.

Furthermore, the questionnaire, the content, and the aim of the study were explained, and the participants were assured of an anonymous evaluation and that no legal or tactical assessment would be made. First, demographic information about the person was collected. Then the shooters were asked to provide information on the reason for the intervention, the mission, and the forces deployed. Subsequently, various aspects were asked about the person shot. Details about the development of the situation and especially about the shooting were asked. Finally, the shooters were asked about various perceptual phenomena. The majority of the questions were closed questions with various multiple-choice answer options. Sometimes questions were also asked as open questions.

A total of 27 completed questionnaires were received as responses. Of these, 2 had to be excluded from the evaluation because one of them contained a warning shot and the other only the threat of the use of a firearm. Neither of these corresponded to the objective of this study. Thus, 25 firearm uses could be evaluated. This represents 9.4% of the 265 firearm uses during the period described above. Of the 25 cases submitted, 2 firearm uses were also in the context of operations by the “Spezialeinsatzkommando (SEK)”, a police tactical unit. Operations of the SEK differ considerably from police shootings in everyday operations. These police officers are trained differently and are more heavily armed. Also, they operate in larger teams. They are also more likely to use firearms in their operations from the outset. However, since the aim of the study was to focus on the use of firearms by police officers of the day-to-day duty, these two cases had to be removed from the analysis, as officers from the SEK have completely different conditions and processes in operations. One questionnaire was split into two cases because it included two distinguishable firearm usages. It contained a firearm use in self-defence to repel an attack and in the further course of the operation, another firearm use against a fleeing person.

Most of the participants in the 25 cases studied here (60.9%) were between 30 and 39 years old. A quarter of the 25 respondents were in their forties (40-49 years, 26.1%), while 2 shooters were up to 29 years old, and one was older than 50. The service experience was 11-15 years for 39.1%, and more than 20 years for a third (30.4%). One person had less service experience (0-5 years). 17.4% were already 6-10 years in service and two respondents had between 16 and 20 years of service. The majority of the shooters were male (82.6%) and 4 were female. A slight majority (43.5%) undertook training on the range three to four times per year prior to firearms use. Slightly fewer participants (39.1%) had 1-2 appointments for practice shooting. Only 2 people each undertook training on the range 5-6 times or more. As a result, half (56.5%) considered themselves to be relatively good shooters during the period before firearms use. One-third (34.8%) believed themselves to be moderately good shooters. Two individuals assumed they were very good shooters. Three police officers had a history of firearm use against people prior to the use described in the questionnaire.

RESULTS

On the operation situation

All respondents stated that their operation was unplanned and had arisen as a part of their normal daily duties. The reasons for the use of firearms were diverse, such as threats, suicide threats, suspected burglary, admission of a mentally ill person, rioters, dangerous interference with traffic, a person who appears helpless, a person suspected of a crime, persons whose behaviour is conspicuous, such as running around naked or screaming in the street, reports of violent crimes, domestic violence and use following the report of an alarm system. Overall, it appears that police use of firearms develops from everyday routine situations. No situation shows an accumulation that would lead to the assumption that the use of firearms would be significantly more likely in this type of situation.

In 6 out of 23 cases, the control centre informed the patrol that a person was handling a firearm prior to the operation. In 12 out of 23 cases, when the patrol was given the order to intervene, it was told that a person with a stabbing/cutting weapon was endangering himself/herself and/or others. In one case a dangerous object was the cause of the intervention. In most cases a particular risk from a weapon or dangerous object was already known before the police arrived at the scene. It must be considered here that firearms are not as widespread in Germany as they are in the U.S., for example. Karp (June 2018) concludes that there are around 120.5 firearms per 100 inhabitants in the USA, while this is said to be 19.6 firearms per 100 inhabitants in Germany. Accordingly, a report that a firearm is a cause for police intervention is an outstanding situation in Germany.

Four times police were called because of a person in an exceptional psychological situation. Thus, it was reported that the police were called because a person was threatening suicide or bystanders feared that a person might commit suicide. However, in addition to the suicide threat, other psychotic symptoms were also reported. The repeatedly reclaimed finding that mentally ill persons appear very frequently in the statistics of police firearm use seems to be confirmed here (Ellrich & Baier, 2014; Diederichs, 2016; Baller, 2018).

The control centre issued the orders to the police officers and provided additional information, e.g., about the perpetrator, the situation on the scene, etc. In the end, this information at the start of the operation was mostly (87.0%) correct. Only once were the information only partially correct or almost completely wrong. The shootings occurred throughout the entire week and over the entire day. No particular clustering at any particular time or day of the week was found. Rather, shootings seem possible on any day at any time. At the same time, police officers had already been on duty for an average of 6.11 hours (SD 3.72, n=23) at the time of firearm use.

In one-third of the cases (8 times = 34.8%), the location was a public street area. Just as often (8 times = 34.8%), the operation took place inside a building. In 17.4%, the mission took place in a less populated place (e.g., backyard). 8.7% of the operations took place in a highly-populated area (e.g., pedestrian zone). In most cases (60.9%), there were no cover options as protection available at the scene. If protection was mentioned (39.1%), then these were mainly vehicles (5 times) and once each, pillars, walls, and door frames. Immediately before the use of firearms, the majority of the personnel engaged within the scope of this operation was 2 to 4

people (65.2%). Most of the police officers present were men (77%). The majority of the forces on the scene were also uniformed.

The lighting conditions were mostly described as daylight (45.5%). For one-third (36.4%) it was rather dim (poorly lit rooms, twilight, dawn), for 18.2% dark (moonlight/streetlights only/weak glow from vehicle headlights/flashlight). Never were the lighting conditions reported as “gloomy – without any lighting” or “very bright”. So, it can be said that about half took place with good lighting conditions, but situations with very poor visibility also often escalate dramatically.

On the person shot

One-third of the people shot at were in their twenties, thirties, or forties. All were male. Both age and gender are consistent with the results of analyses in Australia (Kestic & Thomas, 2020). Here, in 78.3% of the cases, the persons shot were determined to be known to the police, meaning that he or she had previously attracted attention and was registered in the police information system. These persons were known to the police mainly for violent crimes and drug abuse.

The person shot at was rarely unimpaired at the time of the operation. One-third was under the influence of alcohol (30.4%). One in five was on drugs (17.4%). Many of the individuals were considered mentally ill (39.1%). Again, this demonstrates the frequent occurrence of mentally ill individuals in dramatic escalations (Ellrich & Baier, 2014; Diederichs, 2016; Baller 2018). In 11 cases, the police officers involved were not aware of these psychological impairments. Only in 4 cases was the condition known and communicated to the officers before the operation (see 4.1).

Compared to the information reported at the time of the order (see 4.1), in 30.4% of the cases, the person shot at was carrying a firearm or it was close to them. The majority (56.5%) had a stabbing/cutting weapon in their hand or their area of influence. Once, the person shot had a slashing weapon, twice (8.7%) they had a dangerous object. It was never stated that the person shot later did not carry any dangerous objects or had these in their area of influence. Again, these results are similar to those from Australia (Kestic & Thomas, 2020).

DISCUSSION

Restrictions

The results of the study are based only on a small proportion of the total number of cases in the years 2013 to 2017, which is why there is no representativeness. It remains unclear to what extent the shooters participated selectively. It is conceivable that, above all, highly stressed, if not traumatized police officers would rather fail to participate in the survey. In fact, according to DSM-V (American Psychiatric Association, 2013), a continuous avoidance of stimuli associated with trauma is a diagnostic criterion of post-traumatic stress disorder in the way that stressful memories, thoughts, or feelings reminiscent of trauma are avoided. This would

probably prevent these people from participating in an interview. In addition, participation raises the question of whether possible symptoms affecting the recall affect the answers. In the case of post-traumatic stress disorder, there may be an inability to recall essential parts of the trauma (American Psychiatric Association, 2013). This would then lead to missing answers in such questions, or gaps in memories could unconsciously be filled by, for example, diagram-consistent knowledge or answered through confabulation.

In addition to this potential reason for non-participation, (self-) doubt may have prevented participation in the study. Thus, potential study participants would rather not have presented their case, as they were unsure for various reasons whether this could have negative consequences for them. This is not only legally possible but also for police tactics, psychological or ethical reasons. Even in this case of withholding the cases, it cannot be ruled out that they distort selectively, as they could represent a special variant of the use of firearms by the police.

Looking at the results of the survey and focusing on the consequences, one can assume that at least from this perspective, certain representativeness can be assumed. Thus, in the survey, cases are found, which contain all occurring consequences (no one injured, person shot was wounded, person shot is shot dead). The same can also be assumed with regard to the situation of danger. Here, unarmed, stabbing, and threatening persons appear, as well as a range of persons being shot: they are sometimes under the influence of alcohol and drugs, but are also sober or sometimes mentally ill. Here, too, there is a certain range. It cannot be said whether these characteristics are present in the sample considered here in the numerical ratio as in the population as a whole. Only a selective exclusion of certain features does not appear obvious. Rather, a distortion in terms of numbers can be assumed.

After all, there is a variety of aspects that can describe a spectrum of the phenomenon and also help to optimise education and training. Furthermore, given the meagre research situation on police firearm use in Germany as well as internationally (Kesic & Thomas, 2020), it seems helpful to have initial – albeit not very representative – results and insights. Especially because relevant research from other countries needs to be discussed in terms of transferability (White, 2006). For example, the transfer of scientific results on police firearm use in the United States is only possible with caution. Here, operational tactics, political, legal, and cultural aspects, as well as education and training, sometimes differ enormously (e.g., individual patrol, armament, self-image, tactics, organisational culture). However, these are all factors that play an important role in the phenomenon (White, 2006) and in which countries in the European Union also differ greatly (Lorei & Balaneskovic, 2020b). Thus, this study also provides starting points that can support and put into perspective the corresponding transfer.

Key Results

Operation types

From the outset, there is no type of operation in which there seems to be a particular likelihood of police use of firearms. However, it is increasing that information about armament and its use in the past by the acting police officer, appears to be accompanied by the use of a firearm in this particular situation, as is also shown internationally (Kesic & Thomas, 2020). Nevertheless, this is trivial since the use of firearms is primarily an option in such cases. This information is

also not a safe criterion for firing a shot, since a verbal solution as well as by warning to use a firearm, for example, is quite possible and is also regularly achieved (Lorei, 2012c; Lorei 2020). This is also reflected in the fact that many shooters initially gave the warning to use a firearm and thus wanted to avoid it. Thus, they aimed for a solution without the use of lethal force, but the response to the warning had then not (sufficiently) reduced the present threat. In the end, it can be concluded from the analysis that a police officer can probably not exclude the possibility that an incident will escalate and that the use of firearms will be necessary. However, if he or she knows that a weapon is present or that this has even already been used against another person, the police officer cannot rule out the use of firearms but must regard this as a possibility. Accordingly, in such operations, considerations must also be made as to which alternative forces (backup, negotiation team, special forces such as the SEK), strategies, and methods can help to end the operation without the use of firearms.

Shooters

There is hardly any obvious pattern with respect to shooters; they spread over the entire age and experience range. Both men and women are represented and there is no influence of gender, age, or experience in the police force. This is in line with the international research situation (Klahm & Tillyer, 2010), in which these personal characteristics are also regarded as insignificant. Therefore, the analysis must conclude that any police officer may encounter a situation in which the use of a firearm may be possible or necessary.

Person shot

It is noticeable that the persons shot were only men. This is in line with Klahm & Tillyer (2010) as well as Kesic & Thomas (2020), according to whom research shows that the use of violence is more likely in the case of male suspects. A massive accumulation in an age range is not found, but it is more likely to be younger men (Kesic & Thomas, 2020). It should be noted that in Germany, too, many of the persons shot were considered mentally ill and quite a few were impaired by the use of substances. This reflects the findings of Ellrich & Baier (2014) that alcohol and drug influence as well as mentally conspicuous persons, respectively persons in exceptional psychological situations, are significant for this area. This finding also corresponds - at least to some extent - to the findings of Diederich (2016) and Baller (2018) as well as international research findings (Fuller et al., December 2015; Rogers et al., December 2019; Thomas, 2020) that many of the persons shot by police officers in Germany in recent years were often mentally ill or acted conspicuously. Nevertheless, it is important to keep in mind that police officers arguably shot individuals, not because of their condition, but because they were performing actions – in or because of that condition, that posed a corresponding danger to those involved. Thus, police officers were responding much more to what a person was doing than “who they were,” as Durna (2011) notes. This is particularly evident in the arming and behaviour of the persons shot, as Durna (2011) shows for police use of firearms in the United States. The fact that the persons shot were predominantly already known by the police, i.e., they acted conspicuously, also goes in a similar direction.

Situation

It cannot be said that certain days or times of the week are particularly prominent. Although there is a slight concentration on weekends and at night, there are incidents every day and at any time (and at any time of personal duty) that result in the use of firearms. The lighting conditions are described as heterogeneous. Sometimes they seem good because they are light; sometimes they are portrayed as dark and thus, as bad.

CONCLUSION

The primary objective of this study was to gain a greater scientific understanding of the use of firearms by the police in Germany. Despite all limitations of this study, it must be stated that the results can serve to better describe and understand this rare, but serious event of police service. The results presented confirm and expand the empirically based knowledge of police firearm use, that has been available to this date, even internationally, to only a limited extent. The study presented here can serve as a basis for further research in this area and for improving the preparation of police officers for these dramatic situations.

Regarding the important findings presented here, training and education of police officers must be optimised. For example, as findings show, police use of firearms can take place at any time of the day. Therefore, shooting must be practiced in different lighting conditions and locations, as the analysis shows that all lighting conditions and different locations occur. Especially under the aspect of the danger of injuring bystanders (collateral hits), scenarios must be practiced in which the target of the shooting is not alone, but as in a busy location or in an operation as a result of domestic violence, other people and also the patrol partner must be considered when shooting.

Of course, it is not only shooting that should be practiced realistically. Police training should also continue to be held to practice skills and abilities to prevent the use of firearms. For example, in addition to general de-escalation (Engel et al., 2020), there is a need to practice dealing with the mentally ill. Here, drugs and alcohol as well as psychotic conditions make it very difficult for the police to always find peaceful solutions to conflicts so far (Fuller et al., December 2015; Rogers et al., December 2019). These aspects need to be intensively integrated into education and training, even if this cannot ensure that future firearm use can be avoided, it can help to make it less frequent or less fatal in its consequences. In this context, non-lethal operating resources should also be considered (Rappert, 2004).

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