Is Hot Spot Policing Effective Empirically?

Joshua R. Battin

This paper examines the literature used to argue hot spot policing is an effective crime reduction technique. More specifically Sherman, Farrington, Welsh, and MacKenzie (2002) used five experimental or quasi-experimental studies that were given a Maryland Scientific Methods Scale (SMS) of 3 or greater. The authors posited that these five articles provide enough evidence to establish that hot spot policing is an effective policing technique. This paper reevaluates those five articles, allocating new SMS scores. The findings reveal that each of these studies has less explanatory power than originally indicated. Although hot spot policing is potentially an effective policing technique, this manuscript will show inadequate research has been used to understand its successes. Consequently, additional research should be reviewed to understand the full effectiveness of hot spot policing practices.

Key Words: Directed patrol • hot spot policing • program evaluation • evidence-based research

Crime prevention strategies have evolved, incorporating evidence-based research in an attempt to evaluate implementation strategies and thus reduce crime and delinquency. Assisting in the assessment of better informed practices within the criminal justice system, Sherman, Farrington, Welsh, and MacKenzie asked: “What works, what does not, what is promising, and what is unknown . . . ?” (2002, p. 18). Sherman et al. reviewed and critiqued the experimental research available on criminal justice issues by applying the Maryland Scientific Methods Scale (SMS). Additionally, Petrosino, Boruch, Soydan, Duggan, & Sanchez-Meca’s (2001) claim that the exclusion and inclusion of specific literature, when creating policy or practice, has been erratic and without any mentionable method in the past; in response to this problem, Sherman et al. systematically categorized selected research to inform policymakers about the successful techniques available.

The purpose of this paper is to reexamine the literature Sherman et al. reviewed in Evidence-Based Crime Prevention (2002), in which the authors claimed that directed patrols by using spatial analysis “works” as a crime prevention technique. In doing so, the author reevaluates each article Sherman et al. used to make their determination—those scoring a 3 or above on the SMS—and gives it a new score based on additional inquiry. The outcome of this paper suggests that the literature used to categorize directed patrols as a technique that “works” has less explanatory power than originally indicated. The

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author concludes that, after closer scrutiny of the selected studies, these five articles do not have enough explanatory power due to methodological, analytical, and/or inferential flaws. Moreover, two of the studies Sherman et al. used were wrongly categorized into the directed patrol paradigm, meaning these two articles should have never been used to measure the effectiveness of directed patrol.

**Literature Review**

The purpose of this literature review is to provide in-depth information about hot spot policing/directed patrol and review the main aspects of what constitutes this policing technique. Moreover, the following will provide information from additional studies that found positive results from the use of hot spot policing. This will assist in understanding the overall implications of the five experimental or quasi-experimental studies reviewed later in this article.

**Hot Spot Policing**

Hot spot policing uses computer technology to disseminate and illustrate statistical trends in criminal data. This technique, also called crime mapping, is built off the premise that crime is distributed unevenly across an area (Braga, 2007). These problem areas can be targeted by increased police patrols in an attempt to reduce specific crime problems within that area (Braga, 2007; Sherman et al., 2002).

Crime mapping is a broad term, broken down into two categories, statistical spatial analysis and spatial modeling, both of which focus on the distribution of crime within an area, but with two main differences (Ratcliffe, 2004). Statistical spatial analysis concentrates primarily on the spatial relationship between datum points of crime activity in a specific region (Ratcliffe, 2004). The analysis is conducted exclusively on spatial patterns of similar crimes and offender demographics. Patterns of crime activity are the primary focus of spatial analysis, but other secondary factors must be considered when studying crime patterns. For example, a specific crime area may be the result of a particular business or key demographic within that particular area. It is important for researchers always to be aware of such outside factors when analyzing patterns of crime activity.

Spatial modeling focuses on the technology and the application of data into an understandable grid (Ratcliffe, 2004). Today, spatial modeling uses computers to map statistical data taken from law enforcement agencies. The advantage of using technology is that data can be easily entered and viewed by using demographics, type of crime, and many other variables. Using the variables of crime to create maps enables an individual to analyze effectively specific types of crime patterns, which can be useful in the future prevention of that particular crime.
Both spatial modeling and spatial analysis attempt to understand the criminal activity in a specific area, or hot spot. The U.S. Department of Justice defines a hot spot as an area that has a greater than average number of criminal or disorder events, or an area where people have a higher than average risk of victimization (Eck, Chainey, & Cameron, 2005). The proper interpretation of these hot spots is just as important as the data and technology within crime mapping. In the past, these hot spots were improperly interpreted, resulting in the misallocation of police patrol (Gorr, Olligschlaeger, & Thompson, 2003; Ratcliffe, 2004). For example, data entry flaws create incorrect incident maps, which can lead to the misallocation of police services. With an increase of mapping technology, problems such as this can be lessened or avoided.

The use of spatial modeling and crime mapping in the criminal justice system began with police departments using a map of their jurisdiction and different color pins to show crime types. Ratcliffe (2004) points out that this approach has many problems, such as the overlapping of crime in an area and the departments’ inability to distinguish and properly interpret crime clusters. Recently, the use of Geographical Information Systems, or GIS, has made spatial modeling and spatial analysis more effective in the criminal justice system (Gorr et al., 2003). Combining spatial modeling and spatial analysis is the primary function of this new technology. Three main categories of technology allow the user to map crime activity effectively in a particular region and interpret the meaning of those findings. The categories are hot spot mapping, CompStat, and geographic profiling (Ratcliffe, 2004).

Hot spot mapping uses a comparative approach to interpret the findings of the distribution of crime in an area. The technology allows the user to overlay maps, for example of unemployment or socio-economic data, above maps of specific crimes to understand the relationship between variables. In addition, hot spot mapping gives the user a temporal option, which allows the user to create maps based on a period of time (i.e., hours, days, etc.) (Ratcliffe, 2004). This creates an intelligence base for law enforcement agencies to combat future crimes.

CompStat, which began in New York City in the early ’90s, is not considered crime mapping, but rather applying the intelligence gained from crime mapping technology to inform police management and practice. CompStat began when statistical mapping data was presented at a high level meeting among NYPD officers. The data were analyzed and interpreted, and eventually conclusions were drawn about the amount of enforcement in specific areas (Ratcliffe, 2004; U.S. Department of Justice, 1999). This intelligence allows for a shift in patrol and enforcement in specific areas in an attempt to reduce crime.

The main focus of CompStat is to provide accountability among the officers and departments (U.S. Department of Justice, 1999). CompStat provides an accurate report of

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where and when crimes happen. By identifying these high crime areas, top officers of a
department can hold mid-level officers accountable for the methods they may or may not
have used to combat these high crime areas.

Ratcliffe (2004) states that geographic profiling uses existing crime data and
demographics to produce projected crime activity maps. Geographic profiling requires
knowledge of criminological theories to better understand the application. This type of
mapping fuses routine activities theory with the crime pattern theory to create an
anticipated area of crime activity. Routine activities theory states that a person will create
patterns of the same activities over time. A criminal also will create patterns of criminal
activity. When combined with crime pattern theory, which says that a criminal has
preferred areas in which to commit crime, a map can be produced, effectively showing the
likelihood of specific crimes in specific areas.

Despite the increasing use of crime mapping technology, the future is still uncertain,
although it is evident that crime mapping will be a permanent fixture among most law
enforcement agencies. The use of crime mapping seems to be leaning toward particular
areas and may indicate future techniques. For example, broad algorithms are currently
being used which are much more specific than in the past. For instance, increased
technology has allowed queries to indicate specific criminal types, criminal characteristics,
and/or temporal designation (Boba, 2005). This increased use of technology may be a
clear indication that more specific algorithms will be used in the future, which will allow for
better intelligence for upcoming crimes (Bowers, Johnson, & Pease, 2004). Also, the use
of technology has made crime mapping reports more accessible and easier to produce.
This may suggest that future reports may be distributed daily, or even by shift, to keep
officers better informed and allocate patrol most effectively. Lastly, the improvements in
technology have allowed for the definition of more specific areas as hot spots (Bowers et
al., 2004). This focusing implies that future crime mapping will be extremely precise,
identifying exact areas of distinct crimes.

The question that arises after the presentation of a working definition of hot spot
policing is whether hot spot policing can actually be effective in reducing crime rates when
it is implemented correctly. Sherman et al. (2002), as well as other organizations and
researchers, have tried to answer that question through a series of studies.

Measuring the effectiveness of hot spot policing requires an experimental or quasi-
experimental research design. This design allows researchers to obtain control of the
stimulus (in this case, use of hot spot policing), while maintaining a base line comparison
with the control group (Maxfield & Babbie, 2005). Braga (2007) conducted a meta-
analysis of published articles measuring effectiveness of hot spot policing. Braga chose
nine similar and comparable cases for his analysis based on operational definition,
research design, and the hot spot policing techniques used. The result of the study led to two main conclusions.

First, contrary to the literature, hot spot policing was not found to have a significant displacement effect on crime. For the purposes of this manuscript, crime displacement is the relocation of criminal behavior due to specific enforcement practices (Gabor, 1990). Barr and Pease (1990) concluded that most analysis of crime displacement is too narrow. Crime displacement often occurs outside of the unit of analysis and is therefore occurring but not taken into account. Choosing only studies with broad areas of analysis, Braga (2007) sidestepped this argument and concluded that there is no evidence of crime displacement after the onset of hot spot policing implementation.

Braga’s (2007) second conclusion focused on the overall effectiveness of the hot spot policing practices analyzed in the study. He summated that seven of the nine experimental or quasi-experimental designs concluded that hot spot policing had a reduction effect in both crime and disorder reported. This is important to the overall theme of this manuscript. Although it will be shown that specific literature has been used incorrectly to understand the effectiveness of hot spot policing, the intention is not to claim this policing practice is ineffective; in contrast, the purpose is to ensure only the most methodologically rigorous research is used to measure effectiveness. Braga’s research shows that a number of studies, having acceptable methodologies, properly establish and document the success of direct patrol practices.

In comparison with Sherman et al’s (2002) research, Braga’s (2007) research is limited, reporting only whether the techniques were successful rather than providing a ranking system to determine the most effective techniques available. Additionally, the long-term effect of hot spot policing is not available. A longitudinal design, measuring the continuity of the crime reduction, would be a noteworthy and practical piece of literature.

Adding to the support for hot spot policing, Bowers et al. (2004) explored the effectiveness of hot spot policing after the onset of local burglaries. The authors found that residents are more susceptible to burglary two months after a burglary occurred within close proximity. Building off of that research, they added that the use of crime mapping will update the communities’ needs and alert the police where increased patrol is required. This technique was found to have a better effect on burglary rates than traditional policing practices.

A study was conducted by using Pittsburgh crime data to understand the effectiveness of short-term hot spot policing techniques. Gorr et al. (2003) designed a study that mirrored the techniques used by the Pittsburgh Police Department as well as other large police departments throughout the United States. Considering monthly meetings are held to review the progression and effectiveness of hot spot policing, the
authors created a study that questioned the ability of the crime mapping technology to forecast effectively crimes over a short period. In addition, the authors questioned whether the enforcement techniques used can effectively reduce crime and disorder.

Gorr et al. (2003) had mixed results when analyzing short-term crime forecasting techniques. The authors reported that accuracy of forecasting depended on the number of calls for service and the crime that was reported. Small numbers of crimes and calls for service did not create reliable short-term predictions in small areas; when forecasting was most effective, crime and calls for disorder were reported extensively in the month prior. In short, crime mapping techniques could provide a short-term forecast more easily and accurately for areas with high disorder and crime. The other major discovery was that traditional techniques of car beats were found to be insufficient when compared with the policing based on crime forecasting. Combining crime mapping technology and hot spot policing had a more substantial effect on the crime rates within Pittsburgh, Pennsylvania, than traditional routine policing.

It is obvious that the evidence-based literature in criminology is littered with hot spot policing evaluations having positive findings. It is not this researcher’s intention to refute the findings of all the research available, nor is it to claim that hot spot policing techniques do not work. The purpose of this paper is to suggest that Sherman et al. (2002) did not properly apply the SMS to the literature selected, consequently leading to a faulty conclusion. The following sections explain the methodology and analysis this author used to reevaluate the literature Sherman et al. used.

**Methods**

This paper reviews only a limited number of studies. Sherman et al. (2002) evaluated nine studies but used only five to make their determination. According to the authors, for hot spot policing to be classified as an effective technique, at least two studies had to show a reduction in crime or delinquency rates; additionally, the study must have received a score of three or higher on the SMS. Of the nine studies Sherman et al. reviewed, only five obtained this SMS rating, with only one study scoring a four and one scoring a five (see Table 1).

To achieve the goal of this paper, it is necessary to reevaluate only the studies that scored a three or higher on the SMS. The studies that received a score of two or below are not relevant to the overall rating process due to their methodological inadequacies. Table 1 shows the studies that were reevaluated, their overall SMS rating, and the study’s conclusions according to Sherman et al. (2002).
Table 1. Directed Patrol Studies

<table>
<thead>
<tr>
<th>Studies</th>
<th>Scientific Methods Score</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Press, 1971</td>
<td>3</td>
<td>40% more police, reductions of outdoor crime</td>
</tr>
<tr>
<td>Chaiken et al., 1975</td>
<td>3</td>
<td>Police on subways at night, reduced crime</td>
</tr>
<tr>
<td>Sherman &amp; Weisburd, 1995</td>
<td>5</td>
<td>100% more patrol, less observed hot spot crime</td>
</tr>
<tr>
<td>Koper, 1995</td>
<td>4</td>
<td>Longer patrol visits, longer post-visit crime-free time</td>
</tr>
<tr>
<td>Fritsch et al., 1999</td>
<td>3</td>
<td>Undirected saturation patrolling less effective than truancy and curfew patrolling in curbing gang violence</td>
</tr>
</tbody>
</table>

Note. For reference, this table describes the research used to assess the effectiveness of directed patrol practices and Sherman et al.’s SMS rating and findings of each study.

As the table illustrates, Sherman et al. (2002) posited that a total of five studies had a high enough rating to accept the findings. This paper reexamines these five articles individually, reformulating a new SMS score for each. The evaluation criteria is similar to that of Sherman et al.; however, additional literature concerning each study is introduced to cast doubt as to whether hot spot policing techniques are the sole explanation for the decrease in crime rates in the selected areas. The author reviews each of the five articles systematically, identifying methodological, analytical, and inferential flaws, which include plausible miscategorization and unaccounted variables. A score is then allocated to each study. The conclusion of this paper summarizes the implications of these scores and what is really known about hot spot policing and directed patrol based on these five articles.

Analysis

The following section reviews the five studies that Sherman et al. (2002) claimed received a score of three or better on the Maryland Scientific Methods Scale. Each study is reviewed individually, assessing experimental methodology, analysis, unaccounted variables, and concluding rationale. A new SMS score is given to each based on the reevaluation.

Press (1971) examined the effect of a 40% increase in police manpower in the 20th police precinct of New York City. The study collected data consisting of the rates of crimes reported for a five-year period between 1963 and 1967. Additionally, data were collected from neighboring precincts with similar demographics and crime rates; however, this was not part of the original methodological plan. After the study was concluded, rates of
reported crimes were collected from the 18th, 20th, and 24th precincts to take into account the seasonality effects on crime. Sherman et al. (2002) gave this article a SMS rating of three, citing a pre and post program measure of crime, in addition to having multiple control groups available for comparison.

For a study to receive a score of five on the SMS, it must possess the following five elements: be an experimental design and have multiple comparison groups, randomization of treatment, pre- and post-treatment measures, and control for outside variables. In this case, Sherman et al. (2002) posited that Press (1971) did not account for outside variables affecting the dependent variable and there was no randomization of the sample (thus, obtaining a SMS score of three). On the other hand, they claimed this article had a pre and post measure of crime reported in the 20th precinct and comparison groups for baseline crime reporting rates.

Further examination of this article shows that the claim of multiple comparison groups and pre/post measures of crime is weak at best. Beginning with the pre and post measures of crimes reported in the 20th precinct, Press (1971) maintained that this study examined crime reporting figures from a five-year period between 1963 and 1967. However, the way crimes were reported and collected changed after March 10, 1966. This shift in reporting methodology changed the rates so drastically that it forced the author to base his finding solely on the last eighteen months of the study. Consequently, the pre-treatment measure of crimes reported was April 12, 1966 to October 18, 1966, and the post-treatment measure of crimes reported was November 21, 1966 to December 31, 1967. These dates suggest that the findings were based on a 5-month pre measure and a 13-month post measure of crimes reported. Moreover, the pre measure was taken during the time of year where crimes increase due to seasonality effects. The only outcome was either to discard non-corresponding months, having only ten total months available for pre and post measures or use the data collected from the prior four years. The author chose the latter, comparing crime reporting rates collected in a recognizably different manner. This procedure allowed to author to claim he accounted for the seasonality effects, having enough data collection points for pre- and post-test measures. Though it may have looked like there was an acceptable pre and post measure of crimes reported, this is not the case. In fact, the author writes: “As a result, incidence of reported crime showed a substantial increase after the change in the reporting system. Analytically, the data in the two periods are not strictly comparable” (p. 5).

Without consistent data collection methodology, one cannot posit that data are comparable. As a result, this article should have been deducted one point on the SMS for not having a legitimate pre and post measure of crimes reported.
Press (1971) also mentioned that an ad hoc technique was used to create comparison groups after the data were collected. Three precincts were chosen, which were said to have comparable demographics and rates of crime reported. A comparison group is used to establish a baseline for the dependent variable, so a comparison can be made with the experimental group’s dependent variable. Moreover, without randomization, it is important to choose control groups that have similar characteristics, whether that is demographics, crime rates, or the physical environment (Maxfield & Babbie, 2005). The author in the study chose the control groups based on similar demographics and crimes reported to the experimental group. This attempt at creating a post-research comparison group is acceptable within the academic community; however, outside variables may have affected the comparability aspect of the control groups. During this time period the New York Police Department more than doubled its manpower from approximately 1,200 to 3,100 police officer (Sherman, 1990). Although Press (1971) claimed that the comparison groups had only minor fluctuations in manpower, it was also found that these neighboring precincts were experiencing a displacement effect from the precincts that had a large influx in police manpower. Taking that information into account, it would be difficult to claim that the control groups were comparable, when this outside variable affected the crime reporting rates so drastically. Consequently, though there was an attempt at creating post-research comparison groups, other factors had too much of an influence to claim a true comparison between the control and the treatment groups. Due to this rationale, the study should have been deducted another point on the SMS.

The final point that must be made about this article regards the conceptualization of directed patrol. Sherman et al. (2002) conceptualize directed patrol as increased patrol presence in high crime areas during times with the highest criminal activity. Press’s (1971) research focused on the impact of a manpower increase, not necessarily hot spot policing. Simply adding more police does not necessarily mean that high crime areas were targeted; rather, there was only increased police presence. As a result, this article should have never been used to advocate hot spot policing because it does not fall under this policing technique paradigm.

As a result of the aforementioned information, this article should have been given a SMS rating of one if it was to be used to advocate some type of evidence-based policing practices. This score applies only if the article was to be used to understand the effect of police presence, although it wouldn’t have been useful obtaining a SMS rating of one. On the contrary, the SMS rating does not even apply in the case of hot spot policing because the article does not qualify as a study of hot spot policing or directed patrol. Therefore, the SMS rating of one is not relevant, leading to the conclusion that this article should have never been reviewed to evaluate hot spot policing.
Chaiken, Lawless, and Stevenson (1975) studied a mass manpower increase in New York City’s subway system. This study spanned eight years, from 1963 to 1970. In that time period the New York City Transit Authority, the entity that enforces the laws on New York City’s subway system, tripled its manpower. This was the mayor’s response to an increasing number of crimes that were occurring on the city’s subway system. The study attempted to understand the deterrent effect of an increased law enforcement presence in the subway system. The authors focused on robberies occurring on all mass transit within the city limits and any displacement effects of the increased police presence in the subway system. The mayor’s strategy was to increase police presence at “every station and train in the system during the night from 8:00 p.m. to 4:00 a.m.” (p. 8). Sherman et al. (2002) allocated this study a SMS score of 3, claiming comparable control conditions and pre and post measures of robbery were present.

The study found a decrease in the number of robberies due to an increase in police presence during peak times, but the problem with this article revolves around the idea that a comparable control group was present. It is not difficult to understand why a blank increase of enforcement presence will decrease crime. It is, however, more difficult to compare taxi and bus robbers to subway robbers, especially when the text mentions specific characteristics of each. For example, subway robbers have specific characteristics consisting of “booth robbers” and “passenger robbers,” depending upon their approach to robbery. Moreover, there was an increase in the number of New York City Police presence during this time period (Sherman, 1990). As a result, the only viable way to study the effect of increased subway system policing was to allocate half of the number of transit authority police to half of the subway system (e.g or some proportional variation). The other half of the subway system should have kept the same numbers of police that they had been using. This method allows for a comparison to be made with a control group that has similar characteristics (subway system robberies). Consequently, the article should not be given a three on the SMS, because it does not give enough evidence that the control group is similar enough in characteristics to the experimental group.

This article also has the same conceptualization issues as the previous study in that an exhaustive increase during night hours on every train and station does not qualify as directed patrol. The transit authority police must be allocated to areas of increased criminal activity to qualify as directed patrol. As a result, this article should not have been used to measure the effectiveness of hot spot policing or directed patrol.

The next article by Sherman and Weisburd (1995) was given a five on the SMS by Sherman et al. (2002). This insinuates that the study has randomized assignment of the treatment and control, multiple treatment and control groups, controlled for outside variables, and pre and post measures of crime. This study, called the Minneapolis
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Preventive Patrol Experiment, identified 110 hot spots throughout the city, which were no bigger than one street block. Times with high criminal activity were identified as 7:00 p.m. to 3:00 a.m., which accounted for approximately half of the crime calls for service. The treatment was randomly assigned to 55 hot spots, with the other 55 hot spots acting as the control. The control was given normal patrol, while the experimental group was given extra patrol. Experimental patrol was erratic: officers left an area and then moved right back in within a short time. The dependent variables were calls about crime and observed disorders.

The overall methodological approach is sound in that the authors have multiple randomized experimental and control groups and a pre and post test of crime (June 1986 to June 1988). However, controlling for any outside variables was not addressed. Sherman and Weisburd (1995) may have addressed other plausible threats that could have influenced the study’s results, but they did not mention doing so. Another concern is the statistical technique used to analyze the seasonality effects on crime. Only one year, or twelve months, was used to collect data concerning observed disorders. It would not be reasonable to take a SMS point away for not mentioning variables accounted for without actually finding one or more that did influence the outcome. On the other hand, statistically accounting for seasonality requires at least four to five separate periods of data collection for comparability purposes, which is also required to produce significant results (Menard, 2002). Consequently, one point will be taken away from this article, giving it a four on the Maryland Scientific Methods Scale. However, other plausible variables may have attributed to the overall findings of the study.

Koper (1995) attempted to understand the residual deterrent effect of police presence. The study followed a secondary data analysis format where data were obtained from the Minneapolis Preventive Patrol Experiment. The research question focused on the amount of time a police officer spent within an area considered a “hot spot.” It was hypothesized that the more time a police officer is present within a high crime area, the higher deterrent effect when the police presence is absent (survival time).

The study included data from a twelve-month period (December 1, 1988 through November 30, 1989) (Koper, 1995). Data were collected by observing police presence within areas considered hot spots and a 30-minute follow-up period to detect any criminal activity. In short, the findings were that a period of 14 to 15 minutes had the highest survival time without any crime or disorder. Moreover, police presence over 15 minutes had an adverse effect on crime and disorder. That is, survival times diminished as presence moved past 15 minutes. The study was given a SMS rating of four, meaning there were pre- and post-test measures of crime, multiple experimental and control groups (comparable), and control for other variables (Sherman et al., 2002).
This study merely attempted to reevaluate secondary data from the Minneapolis Preventive Patrol Experiment. Though the preventive patrol experiment is considered an experimental design and could be included in the policing chapter of *Evidence-Based Crime Prevention*, this does not automatically qualify the inclusion of a secondary data analysis study. That is not to say that Koper (1995) did not use sound methodological techniques in his analysis; he found consistent results with the data that were utilized. Koper used all data to measure the amount of time a police officer is present in an area and the amount of time it takes for a crime to occur after the police officer has left the area. It was considered an experimental design because the hot spots with increased patrol had less crime occurrences observed in the 30-minute period than areas with low police presence (control). The only inference that one can take from this study is that criminals know that police presence is higher in specific areas and wait longer to commit crimes after the police have moved out of the area.

Additionally, if the results of this study were to be used, the overall conclusion actually contradicts the general intention of hot spot policing and directed patrols. The purpose of directed patrols is to decrease the amount of activity occurring within a high crime area over a period of time. This article merely suggests that a survival time between the presence of police and the next criminal occurs dependent upon the number of police in an area. In short, the criminals know not to commit crimes when police are in their area, and the longer police stay (up to 15 minutes), the longer they wait to commit another crime. To measure the effect properly in both the experimental and control groups, there must be a measure of overall crime in the specific areas (which were defined by street blocks). The implication of this study contradicts the continuity of the effect of hot spot policing.

Considering this information, the Maryland Scientific Methods Scale cannot be applied. The conclusions and findings can be useful to police however. Police can maximize the time between their presence and another crime occurring if they stay in an area for about 15 minutes. That does not sidestep the overall purpose of this paper; that is, are directed patrols effective in reducing criminal occurrences within an area with high crime rates? The amount of time it takes for a criminal to commit a crime once a police officer leaves the area, either areas with high police presences or not, does not necessarily answer this question. Consequently, the study should not be used to make a determination of the effectiveness of directed patrol.

Fritsch, Caeti, and Taylor (1999) researched the Dallas Anti-Gang Initiative and its effect on violent offenses. The purpose of the Anti-Gang Initiative of 1996 was to reduce many problems within the high crime areas of Dallas, Texas. The authors focused on how the program affected violent crime rates over a two-year period. Five control and five
experimental groups were formulated that targeted areas consisting of seven of the most violent gangs in Dallas. The authors created comparable control groups by examining the number of violent crimes within each area. This article was given an SMS rating of three based on the comparable control groups and pre and post measures of crime (Sherman et al., 2002).

To understand the true implications of this article's findings, it is important to examine crime in Dallas historically. The Anti-Gang Initiative of 1996 was created to reduce violent crime, but this was not its sole purpose. The purpose of this program was to reduce violent crime, drug activity, and fear in cities (U.S. Department of Justice, 2008). Viewing this article from a holistic sense, with the inclusion of all types of gang related crime, this program does not look as beneficial as the authors previously claimed. For instance, the authors' findings focused on violent crime, claiming the program was a success. They also collected data about additional gang-related crimes such as robbery and auto theft. Mentioned only briefly is the fact that there was a significant increase in both these categories in the experimental groups. Moreover, two of the control groups had a significant decrease in both these categories. What can be inferred from this is that there is a high likelihood that there is a variable or variables that have not been taken into account or the program was not implemented as originally planned. There is no available data to suggest that the implementation process was not followed. Therefore it would be impossible to deduct a SMS point for that reason. However, there is a possibility that the authors did not account for a third variable influencing the dependent variable.

The authors mentioned briefly a revitalization program, called Enterprise Zones, in which businesses were given tax credits to locate in areas in need of renewal. This program was occurring during the same time period as the Anti-Gang Initiative of 1996. It would not be a concern if the Enterprise Zones were deemed ineffective, but Sherman et al. (2002) categorized these types of programs as "promising," which leads one to assume that this program could have had an influence on gang-related crime rates.

Enterprise Zones overlapped disproportionately with the 10 groups within the Anti-Gang Initiative of 1996 study (Fritsch et al., 1999); a study in which obtained an SMS score of three (Sherman et al., 2002). Consequently, the authors should not have declared comparability across the control and experimental groups. For this reason, the article should have been given a two, deducting one point for non-comparison groups available. It is important to note that just because an author claims comparability of control and experimental groups at surface level, that does not mean the groups are truly comparable. Further inquiry is required to understand the actual level of comparability.
Discussion and Conclusion

It has been shown that Sherman et al. (2002) did not have enough evidence to claim that hot spot policing “works” as a crime reduction technique. This is not to say that hot spot policing does not work in general. This assessment merely asserts that Sherman et al. should have included additional research in the review process. The articles they reviewed had flaws that Sherman et al. did not mention. Three of the studies should not have been included because the hypotheses did not match the conceptualization of directed patrols (Chaiken et al., 1975; Koper, 1995; Press, 1971). Chaiken et al. and Fritsch et al. (1999) failed to identify a comparable control group. Additionally, Fritsch et al. did not control for outside variables that may have influenced the crime rates in the areas they studied. The only useful study Sherman et al. incorporated into their assessment was that of Sherman and Weisburd (1995). Though Sherman and Weisburd did not mention explicitly accounting for any outside variables, supplemental literature did not suggest the presence of an outside variable. The only problem this author found with the Sherman and Weisburd study was the limited number of data collection points to account for seasonality. If the authors had addressed this factor properly, the SMS score would be a five.

The literature suggests that the use of crime mapping technology has advanced the researcher’s ability to identify specific high crime areas. Gorr et al. (2003) found that even with increased computer technology (collecting data between 2000 and 2001), it is still extremely difficult to identify specific hot spot crime areas. This claim is important because Sherman et al.’s (2002) assessment of directed patrols uses five studies preceding this finding, with four outside of the computer technology era (two studies collected data in the 1960s and two in the 1980s). Therefore these studies designated high crime areas with no identifiable method—without the use of technology. It is plausible to assume that without the use of technology, properly identifying these high crime areas was very difficult, if not impossible. As a result, when measuring the effectiveness of directed patrol in the future, more recent studies should be included that use technology to identify high crime areas more efficiently.

Another important idea that emerged from these findings involves the conceptualization issues. Two studies should have been classified as an increase in police manpower rather than a directed patrol (Chaiken et al., 1975; Press, 1971). Sherman et al. (2002) found that increased police manpower was an ineffective crime reduction technique. If these two studies were to maintain their overall SMS score of three, the findings would actually contradict Sherman et al.’s conclusion. This miscategorization insinuates that there is a possibility that increased manpower is an
effective technique when attempting to reduce crime. Future research should reevaluate the entirety of this literature to make a determination about the effectiveness of this specific topic.

In conclusion, Sherman et al. (2002) posit that it is necessary to have two articles scoring a three or above on the SMS to claim that a particular program “works.” This reassessment of the articles they used finds that only one study meets this requirement. Hot spot policing should be categorized as “promising,” given the one article maintaining a three or above on the SMS. As a result, hot spot policing should not be considered as an effective policing technique when strictly using these articles. That is not to say that hot spot policing is not effective. This paper merely establishes that the articles used in Evidence-Based Crime Prevention do not meet the requirements, and an assessment of additional, more recent, research is essential to understand the true effectiveness of hot spot policing and directed patrol.

References


