Article

Arrest and Referral Decisions in Sexual Assault Cases: The Influence of Police Discretion on Case Attrition

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Abstract: Research on sexual assault case attrition spans from the decision of victims to report the incidents and cooperate with police during investigations through the final case disposition in the courtroom. However, few studies have focused on how police discretion influences attrition at the points of arrest and case referral. The current study examines factors of adult sexual assaults reported to the police to determine which legal and extralegal factors were predictive of arrest and which variables were predictive of police decisions to refer cases to prosecutors for consideration. The results of this study showed victim cooperation and evidence significantly predicted arrest and referral, along with variables which measured the seriousness of the case and victim credibility. The findings confirmed both legally relevant and extralegal variables were important considerations during each decision-making point. Implications arising from these results are discussed.

Keywords: sexual assault; police discretion; arrest decisions; case referral decisions

1. Introduction

Research on the reporting of sexual assaults and sexual assault case attrition has increased markedly in recent decades (Horney and Spohn 1996; Kelley and Campbell 2013; LaFree 1981; Pattavina et al. 2016; Rose and Randall 1982; Tasca et al. 2013). Results from sexual violence studies have yielded important contributions to public awareness, prevention strategies, and policy development. In part due to the influence of the women's movement, policies related to sexual assault have shifted in recent decades to move the focus of responsibility from the victim to the offender (Spohn and Horney 1991; Spohn and Tellis 2012). Since the 1970s, reforms have amended evidence standards and victim resistance requirements, created rape shield laws, established specialized prosecution units, and revised the legal definition of sexual assault (Beichner and Spohn 2005; Clay-Warner and Burt 2005; Spohn and Horney 1991, 1996; Spohn and Tellis 2012). Despite these policy changes, sexual assault remains severely underreported, and cases which are reported suffer from high attrition rates once they enter the criminal justice system. To illustrate, the National Crime Victimization Survey indicated that only 22.9% of rapes and sexual assaults were reported to the police in 2016. Further, the US Department of Justice reported that out of every 1000 sexual assaults reported to the police, only 46 will result in an arrest and nine in a referral to prosecutors.

Sexual assault cases may fail to progress through criminal justice system processing at several points. At any stage, victims of sexual assault may discontinue their cooperation with the police or decline to move forward with prosecution. When victims agree to move forward with legal action, attrition is often first influenced by the discretionary power held by the police. Police use their discretion in determining how to address reports of sexual assault, including the decision to make an

arrest (Alderden and Ullman 2012; LaFree 1981; Tasca et al. 2013), and which cases to move forward for prosecution (Frazier and Haney 1996; Gregory and Lees 1996; Horney and Spohn 1996).

As the "gatekeepers" to the criminal justice system (Kerstetter 1990), the police dictate the workload for the entire criminal justice system. While there is abundant research on prosecutors' acceptance of cases and trial outcomes for sexual assaults, fewer studies have examined the effects of police discretion (Alderden and Ullman 2012; Horney and Spohn 1996; LaFree 1981; Rose and Randall 1982; Tasca et al. 2013). This limited body of research has focused on the unfounding of cases (Gregory and Lees 1996; Kerstetter 1990; Soulliere 2005; Spohn et al. 2014; Tellis and Spohn 2008), the decision to arrest a suspect (Alderden and Ullman 2012; LaFree 1981; Tasca et al. 2013) or the decision to forward cases on to prosecutors for review (Horney and Spohn 1996; Kelley and Campbell 2013). These studies have found both legal and extralegal variables to be influential in the decisions made by the police. The current study expands on previous research by examining four categories of legal and extralegal case characteristics associated with two police decision-making points in each sexual assault case: the decision to arrest identified suspects and the decision to forward cases to prosecutors for consideration.

2. Literature Review

2.1. Reporting Sexual Assaults and the Decisions of Prosecutors

Sexual assault victims elect not to report the crime to police for a variety of reasons, including not wanting others to know (Cohn et al. 2013), embarrassment (Felson and Paré 2005), uncertainty of whether the event was a sexual assault (Cohn et al. 2013), fear of retaliation from the offender (Felson and Paré 2005; Wolitzky-Taylor et al. 2011), concerns about the criminal justice system (Cohn et al. 2013; Felson and Paré 2005), and fear of being blamed (Wolitzky-Taylor et al. 2011). Using vignettes, Flowe et al. (2007) found study participants were less likely to believe they would take legal action following a sexual assault if they had consented to other forms of intimate contact prior to the incident. More rigorous studies utilizing victim surveys such as the National Crime Victimization Survey (NCVS) and the National Violence against Women Survey (NVAWS) have found that the relationship between the victim and offender (Felson and Paré 2005; Wolitzky-Taylor et al. 2011), injuries to the victim (Bachman 1998; Felson and Paré 2005; Wolitzky-Taylor et al. 2011), the offender's use of a weapon (Bachman 1998; Felson and Paré 2005), and the use of drugs or alcohol by victims (Felson and Paré 2005; Wolitzky-Taylor et al. 2011) also influenced whether sexual assault victims report the crimes to the police.

Numerous empirical studies on sexual assault case attrition have focused on the court system's responses (Frazier and Haney 1996; Frohmann 1991; Holleran et al. 2010; Horney and Spohn 1996; Kingsnorth et al. 1998; Spears and Spohn 1997; Spohn and Holleran 2001). Research suggests that prosecutors' decisions are guided by the likelihood that cases will secure a conviction, creating a "downstream orientation" of justice (Frohmann 1997), whereby extralegal variables are factored into decisions when substantial legally relevant variables are absent (Spohn and Holleran 2001). Once prosecutors receive a case, they use discretion to decide whether to pursue charging the suspect, offering a plea bargain, or dropping the case (Frazier and Haney 1996; Frohmann 1991; Holleran et al. 2010; Horney and Spohn 1996; Spohn and Holleran 2001).

A number of factors guide prosecutors' decisions in sexual assault cases. Legally relevant characteristics include the seriousness of the case (e.g., a weapon was used, the victim sustained injuries, etc.) and the presence of forensic evidence, as sexual assault cases involving an injured victim and those which contain evidence to corroborate the victims' claims are substantially more likely to be accepted by prosecutors (Frazier and Haney 1996; Horney and Spohn 1996; LaFree 1981; Spohn and Tellis 2012). Significant extralegal variables associated with prosecutors' decisions include: victim characteristics (Beichner and Spohn 2012; LaFree 1981; Spears and Spohn 1997; Spohn and Horney 1996), suspect characteristics (Beichner and Spohn 2005; Horney and Spohn 1996; LaFree 1981; Spohn and Horney 1996), victim credibility factors and risk-taking behaviors (Beichner and Spohn 2012;

LaFree 1981; Spears and Spohn 1997), and the relationship between the victim and suspect (Beichner and Spohn 2005). Another critical factor in sexual assault case attrition is the influence of police discretion, particularly as it relates to arrest and case forwarding decisions (Alderden and Ullman 2012; Horney and Spohn 1996; Kelley and Campbell 2013; Pattavina et al. 2016; Tasca et al. 2013).

2.2. Police Decision to Arrest

Just as prosecutors exercise discretion when determining how to pursue sexual assault cases, research has shown that both legal and extralegal factors influence police decisions to arrest sexual assault suspects (Alderden and Ullman 2012; LaFree 1981; Tasca et al. 2013). Notable legally relevant factors include the ability to identify the suspect (LaFree 1989; Tasca et al. 2013), the use of a weapon (LaFree 1981; Pattavina et al. 2016), and the collection of forensic evidence (Tasca et al. 2013).

The ability to identify a suspect is crucial in order for police to secure an arrest. Extant literature shows that suspects are more likely to be identified in cases where the victim and suspect are acquaintances (Horney and Spohn 1996); however, studies have produced conflicting results on whether suspect identification and victim/suspect relationship impact police decisions to arrest. Some research suggests that the credibility of the victim is questioned in sexual assaults that occur between non-strangers, as these types of assaults do not conform to the stereotypical concept of a real rape (Estrich 1987; LaFree 1981; Spohn and Tellis 2012). As such, some scholars have suggested that the police devote more of their attention to cases in which the victim and suspect are strangers (Alderden and Ullman 2012; Tasca et al. 2013). In an early study, researchers found that suspects were more likely to be questioned by the police and referred to prosecutors when they were strangers to the victim (Frazier and Haney 1996). Tasca et al. (2013) found that while suspects were less likely to be identified in sexual assaults involving strangers, when a suspect was identified, sexual assaults involving strangers were more likely to result in an arrest. The authors noted that some of the victims in the study were reluctant to cooperate with the police and discontinued the investigation. Conversely, a study of 326 felony sexual assault cases found that the police were more likely to arrest suspects who had a prior relationship with the victims, which can be largely explained by the ease of identifying the suspect (Bouffard 2000). More recently, a study that examined 650 sexual assault reports in Los Angeles found arrest to be more likely in acquaintance and intimate partner cases than in stranger cases (Pattavina et al. 2016). These results highlight the hesitancy of some police officers to pursue formal charges in cases that do not conform to the stereotypes of "real rapes" (e.g., suspect was a stranger, a weapon was used, etc.) (Estrich 1987).

The presence of a weapon has been shown to influence whether police arrest sexual assault suspects, as weapon involvement represents an escalation of the seriousness of the crime (Bachman 1998; Bouffard 2000; Horney and Spohn 1996; Kerstetter 1990; Tasca et al. 2013). However, weapon use is relatively rare in the commission of sexual assaults. According to the US Department of Justice, only 11% of sexual assault incidents between 1994 and 2010 involved a weapon (2013). LaFree (1981) assessed the influence of weapon use and found that sexual assaults involving a weapon were more likely to result in the arrest of a suspect. Using a composite measure of aggravated rape which included suspect as stranger, weapon use, victim injury, and presence of multiple offenders, Horney and Spohn (1996) obtained results that contrasted LaFree (1981). The composite measure was not a significant predictor of police decision to arrest (Horney and Spohn 1996).

Relatively few studies have examined how the presence of forensic evidence (e.g., clothing or other items thought to contain DNA and the completion of a rape kit) influences police decisions to arrest sexual assault suspects (Alderden and Ullman 2012; Pattavina et al. 2016; Tasca et al. 2013). In an analysis of 465 sexual assault cases reported to a police department in the Midwest, Alderden and Ullman (2012) concluded that the evidentiary source, victim injury, was not a significant predictor of arrest. Using NIBRS data, Pattavina et al. (2016) concluded the police viewed physical injuries to the victim as proof that the incident occurred; consequently, the police were significantly more likely to arrest suspects in cases where victims sustained injuries. Similarly, a mixed-methods study of

220 police case files found cases with forensic evidence were 27.125 times more likely to result in the arrest of an identified suspect than cases without such evidence (Tasca et al. 2013). Research on the influence of whether a rape kit was completed or consented to and the decision to make an arrest is relatively sparse (Alderden and Ullman 2012; Bouffard 2000). Alderden and Ullman (2012) found the odds of arresting a suspect decreased by 57% in cases where the victim did not complete a rape kit. It is important to consider that the completion of a rape kit does not guarantee the presence of forensic evidence; therefore, the willingness of victims to complete a rape kit can serve as both an evidentiary source and a measure of victim credibility.

The time between the occurrence of a sexual assault and when it is reported to the police has been examined in relation to arrest, albeit study results are mixed (Alderden and Ullman 2012; LaFree 1981; Rose and Randall 1982; Tasca et al. 2013). LaFree (1981) found that the promptness of the report significantly increased the likelihood of arrest. Results from more recent research has contradicted LaFree's findings. Alderden and Ullman (2012) found that the time between the incident and when it was reported bore no significance on arrest decisions. Tasca et al. (2013) found that cases in which victims reported the incidents within 24 h were less likely to result in the arrest of an identified suspect. The authors noted this finding could be due in part by the numerous cases in which the victim reported promptly but declined further participation in a medical examination and/or further criminal justice action.

Victim character and risk-taking behaviors have proven to be significant predictors of arrest in sexual assault cases as the credibility of victims who partake in non-traditional activities is more heavily questioned (Kerstetter 1990; LaFree 1981; Tasca et al. 2013). LaFree (1981) evaluated the influence of risky behaviors by defining victim misconduct as the victim's involvement in any of the following: hitchhiking, alcohol use at the time of the assault, presence in a bar without a male companion, sexual activity outside of marriage, and willing entry into the suspect's home or vehicle. None of the cases which included a reference to victim misconduct resulted in the arrest of a suspect (LaFree 1981). Two studies that used vignettes depicting alcohol use by either/both the victim and suspect have found that victim intoxication decreases victim credibility in the eyes of police; however, in both studies, police stated that their actual responses to sexual assault claims would not vary based on victim or suspect intoxication (Schuller and Stewart 2000; Wentz and Archbold 2012). Therefore, risk-taking behaviors might better predict police perceptions of victims rather than official actions in sexual assault cases.

2.3. Police Referral for Prosecution

A small body of research has focused on the factors that affect the junction between the police and prosecutors in sexual assault cases; specifically, whether the police refer sexual assault cases for prosecution (Frazier and Haney 1996; Gregory and Lees 1996; Horney and Spohn 1996; Kelley and Campbell 2013). Many of the same legal and extralegal variables that are predictive of arrest decisions correspond with the decision to refer cases to prosecutors. The most robust legal factor associated with police discretion in referring cases is the presence of physical or forensic evidence (Horney and Spohn 1996). Researchers identified physical evidence as the presence of semen, fingerprints, blood stains, hair, and skin samples, and indicated that physical evidence significantly increased the odds that a case was sent to the prosecutor's office for review (Horney and Spohn 1996).

Influential extralegal factors include the relationship between the victim and offender (Frazier and Haney 1996) and the timeliness of victim reporting (Horney and Spohn 1996). Frazier and Haney (1996) examined the effect of the victim-offender relationship on police decisions to forward cases to prosecutors and found that sexual assaults occurring among acquaintances were more likely to be referred for prosecution. However, when examining only cases in which a suspect was identified, stranger assault cases were more likely to be referred than cases involving acquaintances. In contrast, Horney and Spohn (1996) created a composite measure of case type which classified cases as *aggravated* when the victim was injured, a weapon was used, there were multiple suspects, or the suspect was a stranger and found that the composite measure was not predictive of whether the police forwarded

cases to prosecutors. However, the same study reported that suspects were more likely to be identified in simple rape cases (i.e., those involving acquaintances), and thus, were more likely to move forward in criminal justice processing (Horney and Spohn 1996).

Finally, the influence of the time between the incident and when the victim reported the crime on case referral was examined by Horney and Spohn (1996). In their study, time to report was related to the believability of the victim; victims who reported promptly to the police were predicted to be viewed as more credible by police and the case more likely to result in a referral to prosecutors than victims who waited to report. However, the authors' findings were incongruent with this prediction. That is, the longer the delay between the incident and reporting, the more likely the case was referred to prosecution (Horney and Spohn 1996).

The conflicting findings regarding which factors influence police decisions in sexual assault cases warrant further research. Early studies on arrest and referral decisions showed extralegal factors to be strongly associated with arrest decisions, while more recent research yields conflicting results regarding the importance of such variables. As well, studies that examine both arrest and referral decisions made by the police for sexual assault cases are lacking. This research is important as a recent study argued the decisions of the police and prosecutors overlap (Spohn and Tellis 2018). Therefore, to gain a better understanding of sexual assault case attrition, research on arrest and referral decisions made by police will illuminate which variables are influential at each stage.

2.4. The Current Study

Recent scholarship calls for increased research on the impact of police decision making on processing sexual assault cases (Pattavina et al. 2016; Spohn and Tellis 2012). The current study responds to this gap by examining police reports from adult sexual assault cases in a Midwestern United States police department to assess victim and case characteristics associated with police decisions to arrest an identified suspect and police decisions to forward cases to prosecution. As such, the research questions this study sought to answer include:

1. Which variables predict whether the police make an arrest in adult sexual assault cases?
2. Which variables influence whether the police forward sexual assault cases to prosecutors?

3. Data and Methods

The location from which the data for this study were drawn is a medium-sized, Midwestern city in the United States. According to Census information, the city had a population of approximately 110,000 at the time of data collection. The city's racial composition was 92.4% White, 2.5% African American, 2.1% Hispanic or Latino, and 3% all other races. The city has a mixed economy (including retail, manufacturing, etc.), and can be described as a university town as it has several universities and community/technical colleges in the surrounding area.

The data source for this study consists of official police reports of adult sexual assault incidents from one local police department employing 145 sworn patrol officers. At the time of data collection, 21% of sworn officers were female and 79% were male. All sworn officers in this agency were White, and the average length of employment as a police officer in this department was nine years. Approximately 75% of the police officers working in this police department were married and had attained at least a bachelor's degree. Police officers at any rank in this department were qualified to respond to reports of sexual assault, as this agency did not have a specialized sexual assault task force/unit.

Data for this study were drawn from 11 years of adult felony attempted or completed sexual assault incidents reported to the police in one local Midwestern police department. Reports were collected beginning in the summer of 2010 and ended in the spring of 2011. Upon approval from the University's Institutional Review Board and the police department, access was granted to all police reports of adult sexual assault incidents that were reported between 1 January 2000 and 31 December 2010. This time frame was selected for two reasons. First, all of the reports were entered using the

same computer software and criteria, offering consistency in the reports. Second, in order to conduct quantitative analyses, it was necessary to collect multiple years of sexual assault reports. The reports contained victim, suspect, and incident characteristics, primarily through initial and follow-up event summaries written by the investigating officers. A total of 570 incident reports were collected. This analysis focused on female victims 18 years of age or older, as a very small percentage of incident reports reflected assaults with male victims (5.8%, or 33/570). Therefore, a total of 537 sexual assault incidents were analyzed in this research. Additionally, the race of the victim was unknown in 81.8% of the cases; however, when victim race was recorded, the majority were White (86.3%). This is not surprising, given the racially homogenous composition of the city and surrounding areas. Because the majority of cases were missing information on victim race, the analyses in this study could not assess any racial effects that have been influential in prior research.

The current research focused on two police decision-making points, the decision to arrest an identified sexual assault suspect and the decision to forward sexual assault cases to prosecutors. The first dependent variable, *arrest* measured sexual assault cases that resulted in the arrest of an identified suspect (coded as 0 for cases that did not result in an arrest and 1 for cases that resulted in the arrest of at least one suspect). The second dependent variable, *forward*, measured the decision of the police to forward a case for prosecution either after arresting a suspect or before an arrest for a pre-charge review (coded as 0 for cases that were dismissed or considered inactive by police and 1 for cases that were referred to the prosecutor's office).

Based on prior research that has shown victim cooperation, evidence, case seriousness, and victim credibility factors influential in how police process sexual assault cases, this study included seven independent variables reflective of those categories. *Victim cooperation* assessed whether the victim was willing to cooperate with the investigation and prosecution of the crime (coded 0 for refused to cooperate and 1 for willing to cooperate). *Evidence* measured whether forensic evidence such as clothing or other items containing bodily fluid was collected during the investigation and whether a rape kit was completed. If forensic evidence was collected from the scene or if a rape kit was completed by the victim, the variable was coded as "1". Likewise, if evidence was not collected and a rape kit was not completed, the variable was coded as "0".

The seriousness of the case included two variables: weapon use and victim injury. *Weapon use* represented whether a weapon (e.g., gun, knife, or other object) was reported by the victim as being used during the sexual assault (0 = no and 1 = yes) and *victim injury* measured whether the victim sustained any visible physical injuries such as cuts, bruises, or abrasions from the sexual assault (0 = no and 1 = yes).

Victim credibility was measured with three extralegal variables: victim alcohol use, the time between the occurrence of the incident and when it was reported, and the relationship between the victim and offender. The variable, *victim alcohol use* measured whether the victim used alcohol immediately before the incident (0 = no and 1 = yes). *Time to report* was coded similar to Holleran et al. (2010) study, which used "0" for sexual assault incidents that were reported to the police by the victim within 24 h and "1" for incidents that were reported to the police more than 24 h after the assault occurred. The variable, *relationship* was coded "0" if the suspect was a stranger to the victim and "1" to reflect a suspect known to the victim (e.g., current or former partner, friend, neighbor, colleague, etc.).

Logistic regression was used to evaluate the effects of the above eight predictor variables on both outcome variables (i.e., arrest and refer case for prosecution). Since the outcome variables are dichotomous, logistic regression was an appropriate multivariate analysis for this research (Menard 2002). As some of the sexual assault cases were missing information on the variables in this study, pairwise deletion was used to account for cases with missing data. Collinearity diagnostics determined there were no issues with multicollinearity, as all variance inflation factors (VIFs) were below 2.

4. Results

Table 1 displays the descriptive statistics for each of the variables used in this study. Similar to Tasca et al. (2013), the analysis includes only those cases in which a suspect was identified by the police. The majority (78.5%) of sexual assault cases did not result in arrest by police. In contrast to police decision to arrest, the police forwarded the majority (56.6%) of cases in which a suspect was identified to prosecution for consideration. Police reports indicated slightly over half of victims reported the incident to police within 24 h (56.9%) and were willing to cooperate with the investigation (54.7%). Weapon use and physical injuries were relatively infrequent, as 24.5% of sexual assaults involved weapons and 27.6% of victims sustained physical injuries. In most of the sexual assaults (71.9%), the suspect was known to the victim. Most victims consumed alcohol prior to the incident (58.6%). In addition, forensic evidence was collected in 57.6% of the cases.

Table 1. Descriptive information for dependent and independent variables.

Dependent Variables	%	*N*
Police Decision to Arrest		
No = 0	78.5	328
Yes = 1	21.5	90
Forward to Prosecutors		
No = 0	43.4	177
Yes = 1	56.6	231
Independent Variables		
Victim Cooperation		
No = 0	45.3	191
Yes = 1	54.7	231
Evidence		
No = 0	75.9	181
Yes = 1	24.1	246
Weapon Use		
No = 0	75.5	318
Yes = 1	24.5	103
Victim Injury		
No = 0	72.4	309
Yes = 1	27.6	118
Victim Alcohol Use		
No = 0	41.4	146
Yes = 1	58.6	207
Time to Report		
Within 24 h = 0	56.9	267
>24 h = 1	43.1	203
Relationship		
Stranger = 0	28.1	120
Acquaintance = 1	71.9	307

Table 2 presents the results of the logistic regression model predicting police decision to arrest an identified suspect. The model examining arrest included victim cooperation, the presence of forensic evidence (including the completion of a rape kit), weapon use, physical injuries to the victim, whether the victim used alcohol, time between the incident and when it was reported, and whether the suspect was a stranger or someone known to the victim. The model was statistically significant, indicating that the model distinguished between cases resulting in the arrest of identified suspects and those which did not.

Table 2. Logistic regression for police decision to arrest.

	B	**SE**	**Exp(*B*)**
Victim Cooperation	2.484 ***	0.352	11.989
Evidence	2.244 ***	0.344	9.431
Weapon Use	0.206 *	0.382	1.229
Victim Injury	0.143 *	0.306	1.154
Victim Alcohol Use	−0.482	0.294	0.618
Time to Report	−0.484 *	0.313	0.616
Relationship	0.182	0.430	1.199
Constant	−0.840	0.302	0.432
Model χ^2/df	68.642/7 ***		
Nagelkerke R^2	0.354		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 2 illustrates the five variables in the model were significantly associated with police decision to arrest an identified suspect. The strongest predictor was victim cooperation. Cases in which the victim was willing to cooperate were nearly 12 times more likely to result in the arrest of an identified suspect. The second strongest predictor was the collection of forensic evidence with an odds ratio of 9.431, indicating cases with physical or forensic evidence were over nine times more likely to result in the arrest of an identified suspect than cases without evidence. The use of a weapon and physical injuries to the victim both significantly increased the odds of arrest. Additionally, the time between the incident and when it was reported was significantly associated with arrest. Arrest was approximately 39% less likely in cases that were reported to the police within 24 h. The completion of a rape kit, alcohol use by the victim, and relationship between the victim and suspect were not statistically significant predictors of arrest.

Table 3 presents the results of the logistic regression model predicting police decision to refer sexual assault cases to prosecutors. The model was statistically significant at the $p < 0.001$ level, indicating that the model was able to discern between cases referred to prosecution and those which were dropped or classified as inactive by the police.

Table 3. Logistic regression for police decision to forward cases to prosecution.

	B	**SE**	**Exp(*B*)**
Victim Cooperation	1.886 ***	0.241	6.593
Evidence	1.988 ***	0.340	7.301
Weapon Use	0.122	0.382	1.130
Victim Injury	0.386 *	0.410	1.471
Victim Alcohol Use	−0.962 *	0.224	0.382
Time to Report	−0.106	0.294	0.899
Relationship	0.024	0.398	1.024
Constant	0.438	0.284	1.550
Model χ^2/df	60.244/7 ***		
Nagelkerke R^2	0.201		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

In this model, four variables emerged as significant predictors of police decisions to forward cases on to prosecution. As with arrest, victim cooperation and forensic evidence emerged as the strongest predictors of sexual assault case referral. Sexual assaults with victims who were willing to cooperate with investigations were 6.593 times more likely to be referred to prosecutors than sexual assault cases in which the victim refused to cooperate. Similarly, cases in which forensic evidence was collected were 7.301 times more likely to be referred than cases without forensic evidence. Sexual assaults that resulted in physical injuries to the victim were also more likely to be referred to prosecutors than cases in which a victim was not physically injured. Victim alcohol use, while not statistically significant in

the model predictive of arrest, emerged as a significant variable to predict case referral. That is, sexual assault cases in which the victims had abstained from using alcohol were over 60% more likely to be referred to prosecutors than cases with victims who had consumed alcohol preceding the incident. Weapon involvement, timeliness of the report, and victim-suspect relationship were not found to be statistically significant predictors of police decisions to refer sexual assault cases to prosecutors.

5. Discussion

Once the police receive a report of sexual assault, they make several decisions that affect how the case is processed within the criminal justice system. Based on a variety of case characteristics, one decision point is whether to arrest an identified suspect. Second, police must also decide whether to refer cases to prosecutors for further consideration or a pre-charge evaluation. The current study included seven legal and extralegal variables which represented four categories: victim cooperation, evidence, seriousness of the crime, and victim credibility. The findings in the current study are overall consistent with previous research which has shown that both legal and extralegal case characteristics are factored into police decisions at both of these points in the criminal justice process (Alderden and Ullman 2012; Frazier and Haney 1996; Gregory and Lees 1996; Horney and Spohn 1996; Kelley and Campbell 2013; LaFree 1981; Tasca et al. 2013).

In this analysis, victim cooperation was paramount to sexual assault cases moving forward in the criminal justice system at both arrest and referral decision points. Victim cooperation was the most robust predictor in the arrest model and second most robust predictor in the decision to refer cases to prosecution. Specifically, arrests were almost 12 times more likely and referrals were over six times more likely when victims were willing to cooperate with investigations. In the jurisdiction used in this study, like many others, cases are considered closed if at any point victims discontinue their cooperation with the investigation, so it makes sense that cooperation was strongly linked to these decision points. The variable representing evidentiary sources was strongly linked to decisions made by police. The significance of forensic evidence closely followed victim cooperation as a predictor of the decision to arrest and was the strongest predictor of case referral to prosecutors. This finding illustrates the importance of gathering forensic evidence from the scene of the offense as well as the importance of encouraging victims to complete a rape kit. This finding is also consistent with prior research, as Tasca et al. (2013) found arrest to be over 27 times more likely in cases that included forensic evidence and Horney and Spohn (1996) found physical evidence significantly increased the odds of case referral.

To assess the role that crime seriousness played in decisions made by police, this study examined the influence of weapon use by the suspect and physical injuries to the victim. Both of these variables were significantly positively related to arrest decisions, and victim injury was significantly associated with the decision to refer cases to prosecutors. In other words, police were more likely to arrest an identified suspect in sexual assault cases where a weapon was used and the victim physically injured. The police were also more likely to refer cases involving victim injury to prosecutors. However, while the use of a weapon to commit a sexual assault was related to arrest decisions, it was not statistically significant in the referral model. These findings are generally consistent with prior research that has found weapon use to be predictive of arrest decisions (Bachman 1998; Bouffard 2000; Tasca et al. 2013) and is consistent with Estrich (1987) argument that some criminal justice officials view cases characterized as "real" rapes more seriously.

Two extralegal case characteristics reflective of victim credibility were included in this study. Victim time to report was significantly associated with police decision to arrest suspects. Identified suspects were far more likely to be arrested in cases that were reported within 24 h. One explanation for this finding is that identified suspects might be easier to locate soon after the sexual assault. In other words, the more time between the incident and when it is reported impedes the ability of police officers to locate a suspect and make an arrest. The influence of timely reporting in this study is also consistent with early studies that suggest rapid reporting by victims may positively influence

police officers' perceptions of victim credibility (LaFree 1981; Rose and Randall 1982). The findings in the current study contrast Tasca et al. (2013) analysis in which they found that cases were slightly less likely to result in arrest when they were reported promptly. Supplementing with narratives, the authors posited that various other case factors outweighed any influence of the time to report (e.g., the victim reported promptly, but refused to submit a rape kit). Victim time to report, however, was not a significant predictor of case referral. This finding mirrors prior research, as Horney and Spohn (1996) found case referrals to be more likely when the assault was not promptly reported.

The use of alcohol by the victim was not significantly related to arrest decisions in the current study; however, alcohol use by the victim greatly reduced the likelihood of case referral. This finding is generally consistent with the influence of victim misconduct (LaFree 1981) and victim credibility measures (Tasca et al. 2013) in previous studies, both of which combined an aggregated a number of behaviors into an overall measure of credibility. The finding in the current study suggests that, at least in the current jurisdiction, alcohol use remains an important indicator of victim credibility as it relates to referral decisions. The relationship between the suspect and victim bore no influence on either arrest or referral decisions. This finding is in contrast to prior conflicting research that has either found arrest to be more likely in stranger cases (Bouffard 2000) or in cases involving acquaintances (Tasca et al. 2013). While some researchers have argued that attempts to reduce the significance of extralegal case characteristics in recent years has been promising (Alderden and Ullman 2012), the consistent relevance of victim credibility variables in both models suggests victim credibility factors remain a factor in police decision making today.

Taken together, the results from this study highlight the importance of victim cooperation, evidentiary factors, and case seriousness in police decisions to arrest identified sexual assault suspects and move cases forward to prosecutors. Our findings also imply that extralegal factors that focus on the credibility of the victims are considered within the context of arrest and referral decisions, albeit to a lesser degree than victim cooperation and forensic evidence. The results of this study lend partial support for the notion that like prosecutors, the decisions of police may be guided by the desire to avoid uncertainty. In turn, cases with overwhelming evidence resulted in arrest and cases that officers predicted would be accepted by prosecutors were forwarded. It is possible that the prosecutors in this study are reluctant to accept cases in which evidence has not been collected as these cases are less likely to secure convictions. It is also plausible that prosecutors may be more hesitant to accept cases in which victims used alcohol prior to the incident as alcohol use increases the level of uncertainty that the incident constituted a sexual assault. As a result, the police may be reluctant to forward cases involving victim alcohol use.

The "downstream orientation" as it pertains to police decision making implies that the police are more likely to take official action in cases they predict will be pursued at the next stage of processing (Frohmann 1991). In this manner, the police avoid uncertainty by referring cases with profound criminal evidence. In the current study, when arrests were made, they most often occurred prior to referral decisions; however, far more referrals to prosecutors were made than arrests. This can be explained in two ways. In general, less is known about the characteristics of a case at the point an arrest is typically made (i.e., before case referral), so cases that are reported quickly and include forensic evidence and injured victims who willingly participate in the investigation secure a prompt response from police by way of arresting an identified suspect. In this study, 43.1% of sexual assaults were reported at least 24 h after they occurred, victim injury was relatively uncommon (27.6% of victims were physically injured) and slightly over half (54.7%) of victims were willing to cooperate. Because this yields relatively few cases that fit the stereotypical definition of a "real rape", police officers may have been less motivated to react with arrest.

An alternative explanation suggests police in this study were inclined to shift their uncertainty to prosecutors by forwarding cases for review prior to making an arrest. As noted, cases with cooperative victims and forensic evidence were nearly certain to be referred to prosecutors. However, weapon use was not associated with referral decisions. Perhaps the police were more likely to refer cases that they

were uncertain about (i.e., those which did not include a weapon) to prosecutors for their assessment before taking further action. In addition, victims in cases which were referred prior to arrest may have discontinued their participation, making the arrest of an identified suspect unlikely. In sum, the overall results of the current research are consistent with prior studies that have found police decisions in sexual assault cases are guided by a combination of legal and extralegal factors.

6. Limitations and Conclusions

It is important to recognize limitations that exist in the current study. First, the data used in this study focused on sexual assault reports from one Midwestern jurisdiction in the United States, and as such, the results have limited generalizability. Future studies should continue to expand research on police discretion in sexual assault cases by studying other jurisdictions or incorporating several communities into one analysis. Furthermore, extralegal variables such as victim race and victim age could not be assessed in the current study because of the significant amount of missing data on these characteristics and because of the homogenous racial composition in the remaining dataset. Second, our study is based on data collected from police reports, and therefore, likely does not capture all instances of discretionary behavior with police decision to arrest or refer cases to prosecution. Other factors not contained within the police reports may also be influencing police decisions to arrest or refer to prosecution. Studies on sexual assault case attrition and police discretion would benefit from triangulation by incorporating interviews with victims or participant observation of police officers and official statistics. While interviews and participant observations carry their own set of limitations, triangulation would strengthen overall findings by reducing the reliance on one method of data collection.

Even with the above limitations, this study contributes to the current literature on sexual assault case attrition by providing an analysis of police discretion at two points in sexual assault case processing. The results have several implications for police practices related to sexual assault cases. First, the influence of victim cooperation and forensic evidence on case processing suggests that police training should not only serve to ensure that evidence is properly collected by officers, but also that officers are properly trained to express the importance of evidence to victims of sexual violence. In this regard, victims may be more likely to cooperate with investigations and further the case through the criminal justice system. Second, the consistent influence of victim credibility factors (i.e., timeliness of reporting and victim alcohol use) on case processing suggests that police training should focus on the importance of refraining from incorporating victim credibility into their decisions. Like extant literature, most sexual assault cases in this study included extralegal factors based on rape myths (e.g., victim alcohol use) which should not influence the way cases are handled by the police. Broadly speaking, reducing stereotypes about rape in society, including the acceptance of rape myths, would lead to greater encouragement for victims to report the incidents to police and continue their involvement in case processing. In turn, police and prosecutors who receive additional training to reduce rape myth acceptance would be more likely to pursue cases without the consideration of victim credibility factors. As a result, sexual assault case attrition would be reduced at all stages within the criminal justice process.

More generally, the results from this study suggest that while legal factors such as forensic evidence have the largest impact on police decision making in sexual assault cases, extralegal factors continue to be important predictors of how far a case reaches within the criminal justice process. Sexual violence remains a critical problem within society and is a crime that continues to be severely underreported, not only in the United State, but globally. Moreover, victims who do not address the assault are at risk of developing mental health issues. Cohn et al. (2013) analyzed data from 441 rape victims who did not report the crime to police and found correlation between criminal justice concerns (including the fear of being treated badly by the police) and long-term mental health issues such as depression and post-traumatic stress disorder. If the fear of negative interactions with the police can be alleviated, sexual assault victims will be less hesitant to report the crimes and more willing to cooperate

with the investigation and prosecution. Future research should continue to examine ways in which police training can reduce sexual assault case attrition and improve outcomes in sexual assault cases.

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