Guardians and handlers: the role of bar staff in preventing and managing aggression

Kathryn Graham1,2, Sharon Bernards1, D. Wayne Osgood3, Ross Homel4 & John Purcell1,5

Social Factors and Prevention Interventions, Centre for Addiction and Mental Health, London, Ontario1 and Department of Psychology, University of Western Ontario, Canada;2 Crime, Law, and Justice Program, Department of Sociology, Pennsylvania State University, University Park, PA, USA;3 School of Criminology and Criminal Justice, Griffith University, Brisbane, Queensland, Australia4 and Department of Medical Anthropology, University of Toronto, Canada5

ABSTRACT

Aims To identify good and bad behaviors by bar staff in aggressive incidents, the extent these behaviors apparently reflect aggressive intent, and the association of aggressive staff behavior with level of aggression by patrons.

Design, setting and participants Data on staff behavior in incidents of aggression were collected by 148 trained observers in bars and clubs on Friday and Saturday night between midnight and 2 a.m. in Toronto, Canada. Behaviors of 809 staff involved in 417 incidents at 74 different bars/clubs were analysed using descriptive statistics and three-level hierarchical linear modeling (HLM) analyses.

Measurements Observers’ ratings of 28 staff behaviors were used to construct two scales that measured escalating/aggressive aspects of staff behavior. Apparent intent level for bar staff was dichotomized into (1) no aggressive intent versus (2) probable or definite aggressive intent. Five levels of patron aggression were defined: no aggression, non-physical, minor physical, moderate physical and severe physical.

Findings The most common aggressive behaviors of staff were identified. Staff were most aggressive when patrons were either non-aggressive or highly aggressive and staff were least aggressive when patrons exhibited non-physical aggression or minor physical aggression. Taking apparent intent into consideration decreased staff aggression scores for incidents in which patrons were highly aggressive indicating that some aggression by staff in these instances had non-aggressive intent (e.g. to prevent injury); however, apparent intent had little effect on staff aggression scores in incidents with non-aggressive patrons.

Conclusion Although there is potential for staff to act as guardians or handlers, they often themselves became offenders when they responded to barroom problems. The practical implications are different for staff aggression with non-aggressive patrons versus with aggressive patrons.

KEYWORDS Alcohol and aggression, bar staff, drinking environment, licensed premises.

INTRODUCTION

A greater than chance relationship between alcohol and violence has been found across a range of countries (Murdoch, Pihl & Ross 1990). Although alcohol consumption appears to play a causal contributing role in aggressive behavior (Bushman 1997), it is clear that other factors such as the personality of the drinker, the drinking environment and cultural drinking patterns and expectations play a role in the consistency of this relationship.
(see Graham et al. 1998). Thus, one way to reduce alcohol-related aggression is by changing factors that modify the alcohol–aggression relationship, such as the role of third parties (Wells & Graham 1999). A key location in which environmental changes can be made to modify the alcohol–aggression relationship is the public drinking establishment (Stockwell, Lang & Rydon 1993; Graham et al. 2004), and bar staff clearly play an important role both in the frequency and level of aggression in this environment (Graham et al. 1980; Homel & Clark 1994; Wells, Graham & West 1998).

Recent developments in routine activities theory provide a useful framework for considering the role of bar staff and management in barroom violence. At its core, routine activities theory suggests that crime is most likely to occur when there is a motivated offender, a suitable target/victim and a lack of guardians to prevent the crime. In an expansion of this theory, Felson (1986) describes how there can be both guardians and ‘handlers’ with guardians helping to protect victims while handlers modify the behavior of the potential offender through moral suasion or other means. As described by Felson (1986), handlers are usually individuals who can influence offenders not to offend through the handler’s knowledge of the offender’s ‘handles’ such as the person’s desire to be highly regarded by friends, family or society. This theory has been expanded further to include a third role that serves to prevent crime—the place manager (Eck & Weisburd 1995; Felson 1995). Place managers include such people as homeowners, doormen, building managers and receptionists, who control access to places and exert social control over the behavior of people in the place. Thus bar staff may influence barroom aggression in all three of the roles of guardians, handlers or place managers.

In terms of preventing aggression, bar staff may serve as guardians in two ways: (1) their presence may deter aggression and (2) they may intervene to protect a victim. Bar staff also serve as handlers, however, when they intervene in patron conflict, in that they may use both verbal and physical influence to prevent aggression, often between mutual offenders. Their ‘handles’ with offenders may include personal relationships with regular patrons or the desire by the patrons to stay in good stead with the bar staff and management and not be ejected. Bar staff also tend to be familiar with the ‘macho’ concerns that influence many bar fights among young males (Graham & Wells 2003), and may use this knowledge to attempt to steer potential offenders toward less aggressive displays of manliness. Finally, a large role of staff is as place managers in the form of controlling entry into the bar and enforcing rules within the bar. While in the broader sense, the bar manager/owner is the true place manager in setting rules and policies, the bar staff act as the agents of management in carrying out and enforcing these rules and policies. The function of the place manager role, however, is not necessarily used to prevent aggression; in fact, bar staff may even increase aggression through aggressive or unfair management/enforcement practices done as part of the place manager role (Wells et al. 1998).

Although there have been a number of studies examining barroom aggression, including some aspects of staff behavior (Graham et al. 1980; Graves et al. 1981, 1982; Homel & Clark 1994; Graham, West & Wells 2000; Graham & Wells 2001, 2003; Leonard, Quigley & Collins 2003; Quigley, Leonard & Collins 2003; Homel et al. 2004), very little research focuses explicitly on the behavior of bar staff and how their behavior escalates or de-escalates barroom aggression. There is also relatively little research distinguishing between aggression that is enacted with benevolent intent (e.g. to prevent greater violence or injury by pushing patrons apart who are fighting) versus violent behavior by staff who clearly intend to harm the victim (Graham et al. 2004). In the present paper, we use observational data collected as part of a study on barroom aggression to explore the types of behaviors that staff use in aggressive incidents, the extent to which these behaviors appear to reflect aggressive or harmful intent and the extent that staff aggressive behavior is associated with the level of aggression exhibited by patrons.

**METHODS**

The analyses for the present paper are based on data collected as part of a randomized controlled trial to evaluate the effectiveness of the ‘Safer Bars’ intervention to reduce aggression, violence and injuries in bars and nightclubs (Graham et al. 2004). As part of this study, initial observations were conducted in all large-capacity bars and clubs (n = 118) in Toronto, Canada that met the following criteria: open to the public between midnight and 2 a.m., restricted attendance to people of legal drinking age and functioned primarily as a bar/club not a restaurant. Large-capacity bars were selected because previous research (Graham 1985; Homel & Clark 1994) indicated that large capacity bars are high-risk locations for aggression. Late-night weekend observation periods were chosen, as these have been shown to be generally high-risk periods for violence (Gerson & Preston 1979; Wells & Graham 2003). A total of 1334 observations were conducted by 148 trained male–female pairs on Friday and Saturday nights between 11.30 p.m. and 2.30 a.m. The frequency with which bars/clubs were visited varied from one observation period to 27, with over 90% of premises visited at least four times and more than 50% visited five or more times.
Observers who were hired for the project were required to have a Bachelor’s degree in the social sciences or equivalent research experience and to be familiar and comfortable with going to bars. Each applicant was given a test of his or her ability to observe and record accurately aggressive incidents and interviewed by at least two members of the project team. All observers were provided with a manual and about 25 hours of training delivered over two weekends (including two bar visits) covering how to observe in bars, data collection procedures and ethical, confidentiality and safety issues.

A substantial proportion of the training focused on recognizing and describing aggression, and observers were given pointers on how to spot potential problem situations (e.g. body language, drunken horseplay, security staff moving quickly through the bar, etc.). All incidents of aggression observed anywhere in the bar, in the line-up to enter the bar or outside the bar after closing were recorded using the following general procedures. When the observers saw an incident, they watched and listened as closely as possible without making themselves conspicuous. If necessary, after the incident, the observers independently jotted down a few notes on a cigarette packet or small notepad to help remember the details. Immediately after leaving the bar or first thing the next morning, the observers independently completed detailed descriptions of the incidents, including descriptions of each participant (sex, age, role in incident, level of aggressive behavior, level of intoxication, etc.) as well as a step-by-step narrative description of exactly what took place during the incident. These incidents were submitted to the Field Coordinator who prepared a final narrative incorporating details from the two independent descriptions of the observers. At the weekly meeting, the observers reviewed this compromise narrative and resolved any discrepancies or omissions in the ratings.

**Measures**

**Staff behaviors**

In addition to the narrative description of the aggressive incident, observers noted the occurrence of 28 behaviors for each staff member who was involved in the incident. These behaviors were drawn from previous research involving barroom observations (Wells et al. 1998; Graham & Wells 2001) and intended to measure potentially de-escalating and escalating aspects of staff behavior. The following question was provided to introduce the list of behaviors: ‘Did any staff member involved in the incident do the following during the incident?’ with observers provided the responses options of ‘yes’, ‘no’ or ‘maybe’ and ‘don’t know’ (see Table 1 for the list of staff behaviors). As with the narrative description, staff behavior ratings were completed independently, with the two observers agreeing on a compromise rating at the weekly meeting following the observation. This variable was dichotomized, with ‘yes’ responses scored as presence of the behavior and ‘no’, ‘maybe’ and ‘don’t know’ scored as lack of presence of the behavior.

**Apparent aggressive intent of bar staff and level of patron aggression**

Following completion of the data collection, incidents were rated by members of the research team according to the apparent intent to harm for each participant in the incident (see Graham et al. 2004). The key criterion for defining aggression, besides unwanted harm, is the intention to produce harm or injury (Baron & Richardson 1994). An act is not aggressive (despite the level of harm) if there was no intent to harm (e.g. accidentally stepping on someone’s foot in a crowded bar). One problem for observational research is that intent is an internal event that must be inferred from the behavior and expressions of the aggressor and victim. In addition, there may be different types or levels of intent. For example, being aggressive toward someone in self defense or to protect someone else is typically not considered aggression in the same way (see Tedeschi & Felson 1994) as initiating aggression to harm a non-aggressive target. No existing standardized method for categorizing intent was found in the research literature. Therefore, in addition to the category of no intent given to participants in incidents who were engaged in no aggressive acts or whose harm in the incident was accidental, three levels of intent (defensive intent, probable intent, definite intent) were defined to capture the apparent intent of the person engaging in harmful acts, with specific criteria developed to distinguish these different levels of intent. The following are the criteria for levels of intent that applied to staff: (1) defensive intent—intervening with others to prevent greater harm, such as pushing people apart who are fighting where pushing uses no more force than required to stop fight, self-defensive acts such as pushing someone away who is being aggressive where pushing uses no more force than required to escape from aggressor, and dirty or angry look, warning person not to continue in aggressive behavior; (2) probable intent—rule enforcement or interventions with patrons where the force used appeared to be excessive but where it was possible that the staff member believed that the level of force was necessary; (3) definite intent—rule enforcement or interventions with patrons where force used was definitely excessive. The following is a typical example of defensive intent:

A scuffle broke out on the dance floor which mainly involved patrons pushing each other and some trying to restrain others. Two patrons were yelling at each
other, then one patron (P1) grabbed another around the shoulders/neck and began yelling in his face. Three staff members made their way through the crowd (they did not harm anyone going through the crowd) and separated and restrained the two men by holding them firmly from behind by the arms and shoulders (the observers noted that the force used did not appear to be excessive). Two staff members stood very close to P1, and talked to him in a serious and calm manner. P1 appeared quite argumentative and it was apparent that he was fairly intoxicated. One staff member then held P1 by the arm, firmly though not forcefully, and all three security staff escorted P1 across the dance floor towards the exit.

Table 1 Percentage of staff exhibiting each type of behavior, inter-rater agreement between observers and percentage of those exhibiting behavior who had apparent aggressive intent.

<table>
<thead>
<tr>
<th>Type of behavior</th>
<th>% who engaged in behavior (n = 791)</th>
<th>Kappa statistics of inter-rater agreement</th>
<th>% of those exhibiting the behavior who were rated aggressive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potentially de-escalating/calming behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displayed confidence and assertiveness at all times in the incident</td>
<td>81.4%</td>
<td>0.17</td>
<td>21.7%</td>
</tr>
<tr>
<td>Responded calmly and patiently at all times in the incident</td>
<td>64.2%</td>
<td>0.40</td>
<td>9.3%</td>
</tr>
<tr>
<td>Made sure there was ‘back-up’ at all times in the incident</td>
<td>63.6%</td>
<td>0.49</td>
<td>21.2%</td>
</tr>
<tr>
<td>Showed respect for the customer at all times in the incident</td>
<td>63.3%</td>
<td>0.35</td>
<td>6.5%</td>
</tr>
<tr>
<td>Kept bystanders from being involved at all times in the incident</td>
<td>53.3%</td>
<td>0.18</td>
<td>19.1%</td>
</tr>
<tr>
<td>Maintained good humor at all times in the incident</td>
<td>40.5%</td>
<td>0.19</td>
<td>6.9%</td>
</tr>
<tr>
<td>Took aside a problem customer to deal with them without interference from others</td>
<td>34.1%</td>
<td>0.22</td>
<td>18.0%</td>
</tr>
<tr>
<td>Average total number of de-escalating/calming behaviors of seven (SD)</td>
<td>3.98 (1.95)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-physical potentially escalating or aggressive behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Squared-off” with a customer? (stood directly in front, close up and face-to-face)</td>
<td>20.4%</td>
<td>0.40</td>
<td>40.4%</td>
</tr>
<tr>
<td>Crowded or stood too close to one of the customers involved</td>
<td>17.0%</td>
<td>0.41</td>
<td>48.1%</td>
</tr>
<tr>
<td>Deliberately stood or gestured in a way to frighten or appear threatening to others</td>
<td>16.9%</td>
<td>0.15</td>
<td>53.7%</td>
</tr>
<tr>
<td>Displayed anger and hostility toward customer(s) or other staff</td>
<td>16.9%</td>
<td>0.53</td>
<td>68.9%</td>
</tr>
<tr>
<td>Shouted or yelled at customer(s)</td>
<td>14.0%</td>
<td>0.37</td>
<td>57.7%</td>
</tr>
<tr>
<td>Violated someone’s personal space (based on the reaction of the other person)</td>
<td>13.6%</td>
<td>0.28</td>
<td>55.6%</td>
</tr>
<tr>
<td>Responded in a way that increased danger of injury to participants or bystanders</td>
<td>9.6%</td>
<td>0.39</td>
<td>69.7%</td>
</tr>
<tr>
<td>Embarrassed or humiliated any of the customers involved</td>
<td>9.5%</td>
<td>0.39</td>
<td>73.3%</td>
</tr>
<tr>
<td>Lost their temper</td>
<td>8.8%</td>
<td>0.59</td>
<td>82.6%</td>
</tr>
<tr>
<td>Used body language that escalated the situation</td>
<td>6.1%</td>
<td>0.29</td>
<td>76.6%</td>
</tr>
<tr>
<td>Showed favoritism toward certain customer(s)</td>
<td>5.8%</td>
<td>0.39</td>
<td>34.8%</td>
</tr>
<tr>
<td>Sent any of the participants outside to fight</td>
<td>5.3%</td>
<td>0.45</td>
<td>33.3%</td>
</tr>
<tr>
<td>Acted unfairly in some other way</td>
<td>4.9%</td>
<td>0.28 b</td>
<td></td>
</tr>
<tr>
<td>Appeared to jump into the situation without thinking</td>
<td>4.4%</td>
<td>0.22 b</td>
<td></td>
</tr>
<tr>
<td>Said something that escalated the situation</td>
<td>3.4%</td>
<td>0.45 b</td>
<td></td>
</tr>
<tr>
<td>Average total number of non-physical escalating or aggressive behaviors of 15 (SD)</td>
<td>1.57 (2.43)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical potentially escalating or aggressive behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used any of the following:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pushing/shoving</td>
<td>18.8%</td>
<td>0.47</td>
<td>55.4%</td>
</tr>
<tr>
<td>Restraining someone forcefully</td>
<td>17.7%</td>
<td>0.55</td>
<td>51.8%</td>
</tr>
<tr>
<td>More physical force than needed to resolve the problem</td>
<td>9.6%</td>
<td>0.48</td>
<td>90.8%</td>
</tr>
<tr>
<td>Headlock</td>
<td>5.0%</td>
<td>0.33</td>
<td>59.0%</td>
</tr>
<tr>
<td>Punching</td>
<td>1.8%</td>
<td>0.29 b</td>
<td></td>
</tr>
<tr>
<td>Kicking</td>
<td>0.6%</td>
<td>0.22 b</td>
<td></td>
</tr>
<tr>
<td>Any other physical aggression</td>
<td>0.3%</td>
<td>N/A b</td>
<td></td>
</tr>
<tr>
<td>Average total number of physical escalating or aggressive behaviors of seven (SD)</td>
<td>0.54 (1.06)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Based on those staff members who were rated by both observers (n = 424–415). †Results not reported when less than 5% of staff exhibited behavior.
The following is an example where the staff’s behavior was rated definite intent:

A conflict was ongoing between the doorstaff and some patrons. One of the doormen grabbed one of the patrons’ arms from behind. The other doorman punched the patron three times in the head while the first doorman held him.

The behavior by the staff in the following incident was rated as probable intent; that is, some intent because the force seemed to be more than necessary, but probable rather than definite because the observers did not see what prompted the ejection and it was possible that the person had acted in way to make the staff believe that the level of force was needed:

Patrons were quickly moving out of the way of three security staff escorting a patron to the exit. One staff member was behind the patron grabbing his shirt with a clenched fist as he was pushing him forward by lifting up his shoulder. A second staff member was in front and to the left side of the patron and was grabbing him by his upper left arm. The third staff member led the way through the bar, pushing patrons aside who did not move out of the way. Nothing was being said by either the staff or the patron. The patron was stumbling and having a difficult time walking due to being pushed and shoved by the staff.

For the present analyses, apparent intent level for bar staff was dichotomized into (1) no aggressive intent (i.e. harm was accidental or defensive intent) versus (2) aggressive intent (probable intent or definite intent to cause harm to someone). The dichotomous variable was constructed for ease of analysis and because of the infrequency that staff acts were rated probable or definite intent (14.1% and 8.6%, respectively). The reason for combining no intent with defensive intent was that most defensive intent occurred in the context of acts to protect patrons where there was a clear non-aggressive goal of the staff member. Probable intent, on the other hand, was combined with definite intent because both involved similar acts and differed only in the degree of certainty that aggressive intent could be attributed to the staff member. The percentage of agreement for the two raters on the dichotomous measure for staff intent was 87.1% and the Kappa measure of agreement was 0.65.

Based on the narrative descriptions, level of aggression by each patron in the incident was rated as (1) no aggression, (2) non-physical aggression only (including a range of behaviors from giving someone an angry look to heated arguments or shouting or yelling), (3) minor physical aggression (e.g. light pushing, unwanted sexual contact, light pulling or grabbing, holding, restraining), (4) moderate physical aggression (e.g. pushing/shoving, pulling or grabbing forcefully, resisting forcefully) and (5) severe physical aggression (e.g. punching, kicking, slamming against wall).

Analyses

Descriptive statistics are provided regarding staff behavior during incidents. We also examine the Kappa statistic, which controls for chance agreement as one measure of inter–observer agreement on individual staff behaviors in order to identify potential problems with the understanding or interpretation of individual scale items. Fleiss (1981) provides the following guidelines for interpreting Kappa values as measures of inter-rater agreement: Kappa >0.75, excellent agreement; 0.40–0.75, fair to good agreement; and <0.40, poor agreement. However, a number of authors have argued that there is no absolute interpretation of Kappa values because these values are strongly affected by prevalence rates, with low prevalence rates resulting in dramatically decreased Kappa values (Spitznagel & Helzer 1985). Therefore, we also take into consideration the percentage agreement between the two raters in judging the appropriateness of specific items. However, it should be noted that the main focus of the analyses is on scales constructed from these items, not the items themselves, and the key measure of inter-observer agreement for these analyses is the Pearson correlation coefficient between the two observers’ scores on the overall scales.

Hierarchical linear modeling (HLM) (Bryk & Raudenbush 1992) was used to assess the statistical significance of relationships between staff behavior and both patron aggression and the number of patrons involved in incidents. The three-level HLM models took into account the statistical dependence of the data arising because incidents were nested in bar visits (i.e. more than one incident could occur during a single visit) and visits were nested in bars. The HLM analyses included variance components for the mean level differences across visits and across bars, as well as residual variance terms for the effects of patron variables when they proved significant.

Because the measures of staff behavior were highly skewed, we present results based on the over-dispersed Poisson version of HLM, which proved to fit the data better than the usual linear model. Overall results from linear HLM analyses were essentially identical to those presented here.

RESULTS

In total 1058 incidents of aggression (including very minor non-physical to severe physical aggression) were observed during the course of the study. Of these, 417
involved 809 bar staff with these incidents occurring in 74 different bars or clubs. Of the incidents involving bar staff, 50.6% involved one staff member, 25.2% involved two staff and 24.2% involved three or more. Of staff involved in incidents, 75.6% were security or door staff, 15.4% were bartenders or other serving staff, 5.0% were managers and 5.0% had other roles or observers were unsure of their role.

Table 1 shows the staff behaviors grouped by whether the behavior was intended to reflect ‘good’ staff behavior (i.e. behavior that would tend to de-escalate or reduce aggression) and ‘bad’ behavior (i.e. behavior that would tend to escalate or increase aggression). The bad items were subdivided further into non-physical and physical acts. As shown in this table, ‘good’ or potentially de-escalating/calming behaviors were noted frequently by observers, with an average of almost four good behaviors (of a possible seven) per staff who were involved in the incident. However, many of the individual items showed low inter-rater reliability as measured by the Kappa statistic. There was also low to moderate inter-rater agreement as measured by percentage of agreement between the two observers (varying from 59.0% to 75.9%). More importantly, further examination of the items intended to measure ‘good’ staff behavior suggested that a number of these items did not necessarily reflect staff interventions that were de-escalating or calming—for example, someone could display confidence and assertiveness while using severe and inappropriate aggression. In fact, a substantial proportion of staff exhibiting some of the ‘good’ behaviors were rated as having apparently aggressive or harmful intent (e.g. 21.7% of those rated as displaying confidence and assertiveness were also rated as having aggressive intent). In addition, certain behaviors (i.e. kept bystanders from being involved, making sure of back-up) did not necessarily apply to all incidents, and one other item (i.e. maintaining good humor at all times) may not have been an appropriate way to respond to some serious incidents. Thus, only two items of the initial set developed to capture ‘good’ staff behavior appeared both to apply to most situations and to be clearly de-escalating. These were: responding calmly and patiently at all times and showing respect for the customer at all times.

Non-physical ‘bad’ or potentially escalating behaviors by staff were generally infrequent, with an average of 1.6 behaviors (of a possible 15) per staff, with 398 (50.3%) of the staff involved in incidents exhibiting no non-physical bad behaviors. It should be noted, however, that many staff (approximately 25%) functioned only in the role of back-up/monitoring as part of the conflict situation and so had little opportunity to demonstrate most of the ‘bad’ behaviors. The most common non-physical escalating acts were ‘squaring-off’, appearing threatening, displaying anger/hostility, crowding someone, shouting/yelling and violating personal space. Percentage of agreement between observers was generally high, with all behaviors except two having over 80% agreement and many over 90%. Inter-rater agreement as measured by the Kappa statistic was more than 0.40 for many items, with values less than 0.40 clearly reflecting the low base rates for those particular behaviors. Together with the high rates of percentage of agreement, all but one item was judged suitable for retaining as part of the overall scale. The one item that appeared to be potentially problematic for inclusion in the scale was ‘deliberately stood or gesticulated in a way to frighten or appear threatening to others’, which had both a very low Kappa as well as less than 80% agreement. This item was intended to measure the extent that staff had an aggressive demeanor that invited challenges and aggression. However, examination of incidents in which staff were rated as appearing threatening suggested that this item was not measuring what it was intended to measure. For example, staff acting in the role of back-up would sometimes be rated by an observer as appearing threatening, because they were giving looks to bystanders to prevent them from becoming involved in a conflict. In this instance, the ‘threatening’ looks probably served as de-escalating behavior. Because of these ambiguities in interpretation of the item, it was not included in the scale of non-physical escalating behavior.

The percentage of staff who were rated as having harmful or aggressive intent varied from 33% for sending participants out to fight to 81% for staff losing their temper. Two behaviors, in particular, showed low rates of aggressive intent—showing favoritism and sending participants out to fight. This makes some sense in that these behaviors may not be accompanied by acts that actually involve harm or aggressiveness toward specific individuals; that is, while possibly putting patrons at higher risk, these behaviors would not have been rated as specifically harmful or aggressive in their intent. Other acts that were less frequently rated as aggressive intent included squaring-off or crowding someone—both of which may have been necessary (i.e. and therefore non-aggressive) in the context of intervening to come between patrons who were trying to attack one another. Of the non-physical escalating/aggressive behaviors, losing their temper and embarrassing or humiliating a customer were the behaviors most likely to be related to apparent aggressive intent.

Physical ‘bad’ or potentially escalating/aggressive behaviors were infrequent with an average of 0.54 (of seven) per staff member and with 580 (73.3%) staff involved in incidents exhibiting no physically aggressive behaviors. The Kappa statistic for interobserver agreement exceeded 0.40 for three items and 0.20 for items with very low base rates: percentage of agreement between observers varied from 82% to 98%. The most
common physical acts were pushing/shoving and restraining forcefully. Aggressive or harmful intent was most likely to be attributed for staff behaviors that involved using more physical force than necessary and least likely for staff restraining someone forcefully, with the latter being the most likely of all physical behaviors to be enacted in the context of preventing greater harm.

**Construction of scales for measuring staff behavior**

While the individual items provide considerable information about how bar staff behave in incidents of aggression, construction of scales is important both for enhancing inter-rater reliability and for quantitative analyses. Because of problems in interpreting the ‘good’ behaviors, only two good behaviors were used for the scales. These were reverse coded and combined with non-physical ‘bad’ or escalating/aggressive behaviors, with these two revised ‘good’ items now interpreted as measuring ‘bad’ behaviors; namely, a lack of calmness and patience and a lack of respect for the customer. As noted in the previous section, the behavior of deliberately frightening or appearing threatening was dropped from the non-physical escalating/aggressive behavior scale. When scale analyses were performed with the remaining non-physical bad or escalating items plus the two reverse-scored good items, the resulting Cronbach’s alpha was 0.83 and the inter-rater agreement between the two observers was moderate, as measured by the Pearson correlation coefficient \( r = 0.66 \). The scale score was calculated by summing the number of behaviors exhibited by the staff member and dividing by the total number of possible bad behaviors (16).

For the seven items reflecting physical bad or escalating aggressive behavior, Cronbach’s alpha was 0.68 and the Pearson correlation for inter-rater agreement on the scale scores was \( r = 0.58 \). It should be noted that while it might be expected that there should be high agreement on acts of physical aggression, disagreements can occur because of the nature of aggressive incidents in which staff typically become physically aggressive. In particular, many acts of physical aggression occur in the context of a large number of people engaged in conflict where it is difficult to know exactly who did what—thus observers may not agree, for example, on which staff member threw the punch even though they agree that a staff member did punch someone in the incident. Thus, while the interobserver agreement may be somewhat low, the compromise scores agreed upon by both observers ensured that the staff behaviors are appropriately rated for analysis at the incident level.

Security staff scored higher than bartenders/servers on both non-physical and physical potentially escalating or aggressive behavior. For non-physical aggression, the mean scores were 0.14 and 0.10, respectively \( (F_{1,69} = 3.9, P = 0.05) \); for physical aggression, the mean scores were 1.0 and 0.03 \( (F_{1,69} = 20.3, P < 0.001) \).

**The relationship between potentially escalating/aggressive staff behavior during aggressive incidents and level of patron aggression**

In order to examine the relationship between staff behavior and patron level of aggression, it was necessary to conduct analyses at the incident level rather than the level of the individual bar staff, because many incidents involved more than one patron and more than one staff member and there was not always a direct one-to-one relationship between a particular staff member and a particular patron. For these incident-level analyses, the maximum score on the two scales of bad or escalating/aggressive behavior (non-physical and physical) for all bar staff involved in the incident were used as the incident-level measures of staff aggression. These two incident-level measures showed moderate interobserver agreement with \( r = 0.69 \) for maximum non-physical bad behavior and \( r = 0.65 \) for maximum physical aggression. However, as noted in Table 1, apparent intent is an important moderating variable for these scales of staff behavior. Therefore, two additional staff measures (one for physical and one for non-physical aggression) were calculated taking into account intent. In particular, if the staff member was assessed as having no intent or non-aggressive intent, the staff member was assigned a score of 0 on the scales of physical and non-physical aggression, prior to calculating the maximum scores on the scales for the incident.

The incident-level measure of patron aggression used in these analyses was the maximum level of aggression exhibited by any patron in the incident. Across all incidents involving staff, patrons showed no aggression in 53 incidents; only non-physical aggression in 200 incidents, minor physical in 75 incidents, moderate physical in 44 incidents and severe physical in 30 incidents. An alternative measure of severity of patron aggression was also used; namely, the number of patrons in the incident. This was included based on the assumption that staff may need to use more force or physical aggression to gain control of an incident when the incident involves several patrons rather than just one. Overall, 147 incidents involved one patron, 107 involved two patrons, 54 involved three, 46 involved four and 48 incidents involved five or more patrons.

Figure 1 shows the relationship between non-physical staff behaviors and the highest level of aggression displayed by patrons in the incident (these analyses exclude seven incidents that did not involve patrons, e.g. conflict between staff members, aggression by staff where no...
specific patrons were targeted, conflict between staff and police), with the solid bar showing the raw score and the shaded bar showing the score adjusted for apparent intent. As shown in Fig. 1, the relationship between staff aggression and patron aggression appeared to be curvilinear—with staff most aggressive when patrons were not aggressive at all and when patrons were highly aggressive and with staff showing the lowest level of aggressive behaviors when patrons exhibited non-physical aggression or minor physical aggression. This pattern was evident for physical behavior as well (Fig. 2), and the same effect was evident whether or not apparent intent was taken into consideration.

In HLM analyses that controlled for the number of patrons involved, the relationship of patron aggression to staff behavior was statistically significant for all four versions of the measure of staff behavior (all \( \chi^2 > 16, df = 2, \ P < 0.001 \)). Compared to incidents in which patrons were either non-physically aggressive or showed minor physical aggression, staff were significantly more aggressive in incidents with no patron aggression (\( t \)-values = 2.1–4.4, all \( P < 0.05 \)) and in incidents with moderate to severe patron aggression (\( t \)-values = 3.1–6.3, all \( P < 0.01 \)). The higher level of aggression by staff in response to high level aggression by patrons makes sense and would be expected. The high level of aggression by staff when patrons are not exhibiting aggression, on the other hand, was not expected. However, it can be accounted for by highly aggressive rule enforcement toward apparently non-aggressive patrons, as in the following example:

At 1:30 a.m., the bar was still very crowded but not at its peak. Two male staff members were leading a male patron towards the side exit. The patron was obviously intoxicated (blurry unfocused eyes, droopy body, slow movements). As they passed by a third male staff member, he grabbed the patron by the collar of his jacket and gave him a short but violent shake, yelled in his ear and hurried him out the exit. The observers could not hear what was said and did not know why the staff member was so angry. The patron showed no reaction.

Figures 1 and 2 also show the impact of taking apparent intent into consideration in relating staff behaviors to patron aggression. As shown in these figures, changing the score to 0 where there was no aggressive intent, reduced the average score for staff on physical escalating/aggressive behaviors for highly aggressive patrons but had much less impact for less aggressive or non-aggressive patrons, with this effect particularly strong for physical aggression by staff (Fig. 2).

Figures 3 and 4 show the relationship between number of patrons involved in an incident and maximum scores on the non-physical and physical staff behavior scales. Again, there was evidence of a curvilinear relationship with a tendency for staff escalating/aggressive behavior to be rated highest when there was either one patron involved or five or more patrons. Also, taking apparent intent into consideration had a greater impact for staff intervening with a large number of patrons.
than when only one patron was involved, especially for physical aggression by staff. HLM analyses, which also controlled for patron aggressiveness, indicated that the relationships between all four measures of staff behavior and the number of patrons were statistically significant (all $\chi^2 > 7.4$, df = 2, $P < 0.05$). This result was due primarily to greater staff aggression for incidents involving only one patron than for those involving more than one. For all four measures, there was a statistically significant difference between incidents involving only one patron and those involving two or three ($t$-values = 2.1 – 3.2, $P < 0.05$), but not between incidents involving two or three patrons and those involving more ($t$-values = −1.1 – 1.8, $P > 0.05$). It appears that the high level of aggressiveness by staff for incidents involving many patrons seen in Figs 3 and 4 can be explained by high levels of aggressiveness by patrons in those cases. Taking apparent intent into

Figure 2 Maximum level of physical potentially escalating or aggressive behavior of bar staff (shaded bars on the right show behaviors excluding those with no apparent aggressive intent) by maximum level of patron aggression in the incident. Maximum score on physical aggression scale

Figure 3 Maximum level of non-physical potentially escalating or aggressive behavior of bar staff (shaded bars on the right show behaviors excluding those with no apparent aggressive intent) by number of patrons in the incident. Maximum score on non-physical aggression scale
consideration reduced staff aggression least for incidents involving only one patron.

**DISCUSSION**

This is the first observational study to examine systematically various types of escalating and de-escalating behaviors by bar staff. In general, there were moderate levels of inter-rater agreement, with better agreement on the escalating or aggressive behaviors than on the de-escalating behaviors. Two scales were constructed for potentially escalating or aggressive behaviors: non-physical and physical. These scales showed good internal consistency in terms of Cronbach’s alpha and moderate inter-rater reliability—suggesting that they provide a useful way of measuring how staff respond with non-physical or physical tactics to conflict or problem situations. Security or door staff had higher ratings on these scales than bartenders/servers; this result would be expected given that security staff have the explicit responsibility of dealing with conflict situations.

The de-escalating/calming behaviors proved more difficult than aggressive behaviors to measure unambiguously for several reasons. First, specific types of de-escalating behaviors were not relevant to all situations (e.g. keeping away bystanders) while others (e.g. displaying confidence and assertiveness) could be combined with highly aggressive and escalatory behavior. Thus, while progress has been made in terms of detailed measures of escalating or aggressive tactics used by staff behavior in incidents, measurement of de-escalating behaviors has proved to be more elusive. Moreover, the incident-based approach used in the present study may not be the best method for identifying de-escalating/calming behaviors because especially skillful de-escalating behavior could result in an incident of aggression not coming to fruition and, thus, there would be no incident to include in the database. Therefore, additional methods need to be developed in order to adequately measure ‘good’ or de-escalating behavior of staff in their role as guardians of patron safety and handlers of potentially aggressive patrons.

This study identified the most common escalating or aggressive behaviors used by staff. This knowledge is relevant to the development of training programs by allowing these programs to focus on the major ways that staff escalate situations. Ratings of apparent intent to harm provided additional clarification regarding staff behaviors. While these ratings are judgements made on the basis of incident descriptions and not measures of how staff, themselves, perceived their own intent, these ratings do identify the types of acts that appear to be motivated by preventing patron aggression or injury versus the types of acts that are more reflective of possible or definite excessive use of force by bar staff. Taking into consideration the apparent level of intent of the staff member provides a better understanding of how various escalating behaviors tended to be employed. For example, almost half of incidents involving pushing/shoving or restraining forcefully were rated as defensive intent while using more force than necessary was almost always rated as offensive intent.
probable or definite intent. These results suggest that pushing/shoving, although technically ‘aggressive’ behavior, are often used by staff with the intention of de-escalating a situation or preventing patrons from injuring one another.

Analyses of the relationship between level of patron aggression and staff aggression indicated that staff aggression was highest when patrons were either non-aggressive or highly aggressive—with staff aggression lowest when patrons exhibited non-physical or minor physical aggression. Apparent intent of the staff member modified this relationship by lowering the scores on physical aggressiveness of staff when patrons engaged in moderate to severe physical aggression but having little impact when staff were aggressive with non-aggressive patrons. These results indicate two different types of staff aggressiveness: (1) aggressive rule enforcement or ejection techniques toward non-aggressive patrons, with this type of aggressiveness stemming probably from employment of aggressive staff members and (2) aggressiveness to control or respond to high levels of patron aggression (although it cannot be ruled out that some of the relationship between staff aggression and severe patron aggression was related to patron aggression elicited by aggressive staff). The practical implications are different for these two types of aggression. For the first type, bar owners/managers need to focus on hiring non-aggressive employees and training/encouraging less aggressive rule enforcement and place management. The second type of aggression can be addressed either by lowering risks of patron aggression in the first place (early intervention, decreasing environmental risk factors) and by teaching staff more effective intervention techniques when intervening with aggressive patrons. While interventions have been developed to reduce high patron aggression by early intervention using non-physical tactics and by lowering environmental risks (Graham et al. 2004), no training programs have been evaluated in the research literature that include training in effective physical techniques for intervening in and de-escalating physical aggression between patrons. Thus, there is a need for a standardized program of this type to be developed in order to minimize the extent that staff increase risk of injury when they intervene physically in patron conflict.

The results have implications relating to bar staff roles of guardians, handlers and place managers (Eck & Weisburd 1995; Felson 1995). Unfortunately, with the present data it was not possible to separate the role of guardian versus handler because these roles tend to be blurred and are dependent on details of the interaction that are typically not observable in crowded noisy barroom environments. For example, a staff member who pulls away a patron who is punching another patron is acting in the role of guardian to the second patron; however, if in pulling the first patron away the staff member is using one of the patron’s ‘handles’ (e.g. telling a patron who is motivated to come to the club each week that he/she will not be allowed back in if he does not settle down), then the staff member is also acting as a handler.

The first implication of the results pertains to the role of place manager. A considerable amount of unnecessary aggression appears to occur as part of the implementation of the place manager role by highly aggressive bar staff. In some cases this may be stimulated by frustration in dealing with intoxicated patrons; however, at least some of this aggression by staff was due probably to ‘power-tripping’ and inappropriate use of power (see Homel, Tomsen & Thommeny 1992; Wells et al. 1998). Thus, considerably more attention should be focused on the place manager role of bar staff in reducing staff-generated aggression.

Secondly, the findings with regard to apparent intent provide some possible insight as to how well the staff are managing the guardian/handler role. In particular, a substantial proportion of physical aggression by staff that occurred in situations with moderate–severe physical aggression by patrons involved defensive intent (i.e. intent to prevent harm)—indicating that at least some staff were intending to play a guardian/handler role. At the same time, many potentially escalating/aggressive behaviors by staff were rated as involving aggressive intent. This suggests that, in many instances, staff became offenders themselves when they intervened, rather than actually serving in the preventive role of guardian or handler. Future research on barroom aggression needs to look more explicitly at the factors that determine whether bar staff serve as effective guardians/handlers or whether they lose sight of this responsibility and become offenders themselves. In addition, it might be useful to introduce the constructs of guardian, handler and place manager into bar staff training programs as a way of fostering behaviors and interventions that use the minimum of force required. At present, bar staff may be more likely to see themselves as enforcers rather than protectors; therefore, a change in orientation might foster less aggressive approaches to conflict situations. In addition, communication to bar staff and managers of their legal liabilities for the wellbeing of patrons may serve to strengthen the role of protectors.

Acknowledgements

This research was supported by a grant (RO1 AA11505) to the first author from the US National Institute on Alcohol Abuse and Alcoholism; its contents are solely the responsibility of the authors and do not necessarily represent the official views of the NIAAA or NIH. We appreciate developmental funding from the Centre for
Addiction and Mental Health. Thanks also to Colleen Tessier and Christine Bois who helped with implementation of the project, to Sue Steinback who assisted in a multitude of ways throughout the project and to Samantha Wells who provided feedback on the paper. We are also grateful to the many other people who contributed to the success of the project including the bar owners, managers and staff, the Field Coordinators and observers, the Safer Bars trainers and those who helped with data entry and cleaning. A version of this paper was presented at the 15th International Conference on the Reduction of Drug-Related Related Harm, Melbourne, Australia, 2004 and the 30th Annual Alcohol Epidemiology Symposium of the Kettil Bruun Society for Social and Epidemiological Research on Alcohol, Helsinki, Finland, June, 2004.

References


© 2005 Society for the Study of Addiction