Managing the Threat of Terrorism in Sport: Importance and Performance Analysis (IPA) of Safety and Security Preparedness for NCAA Sport Facilities

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A college sport-related terrorist incident could have a catastrophic economic and social impact resulting in mass casualties, destruction of infrastructure, and liability issues (Hall, Fos, Marciani, & Zhang, 2011). It is therefore imperative that safety and security stakeholders are able to detect, deter, respond to, and recover from a disaster incident (Hall et al., 2011). Previous research in college sport safety and security has primarily focused on: 1) stadium managers’ and spectators perception of terrorist attacks on college sport facilities, 2) industry gaps in training and education of college sport security personnel, and, 3) risk management practices and security planning standards for college events (e.g., Beckman, 2006; Baker, Connaughton, Zhang, & Spengler, 2007; Hall, Marciani, Phillips, & Cunningham, 2009). These studies have indicated specific preparedness plans and policies necessary to combat threats at college sporting events, including, but not limited to risk assessments, audits, emergency and operations planning, exercises; and staff training. However, previous studies were primarily descriptive in nature and did not compare to what extent the identified security and safety plans and policies are perceived and performed by those who manage athletic venues across NCAA division levels. To fill the void, this study was designed to assess the level of safety and security preparedness at NCAA Division I, II, and III based on key stakeholders’ perceptions through the use of the Importance and Performance Analysis (IPA; Martilla & James, 1977).

A total of 863 key stakeholders representing 416 NCAA institutions were asked to participate in a survey. A total of 392 were collected for a response rate of 45%. The survey instrument addressed two separate categories: (1) event security and incident management; and general demographic information (i.e., job title, experience, education, size of institution, athletic conference, and stadium capacity). Event security and incident management items were rated on a 6-point Likert scale. Participants were asked to rate both the degree of Importance (1 = very low to 6 = very high) and degree of Performance (1 = non-existent to 6 = very high). The preliminary instrument was sent to a panel of experts (N = 4) for content validity. Data were collected at NCAA Division I, II, and III safety and security stakeholder group workshops. Procedures in the SPSS version 18.0 were employed to calculate descriptive statistics, execute the exploratory factor analysis (EFA), calculate Cronbach’s alpha coefficients, and conduct paired samples t-test for the IPA. The IPA results were plotted on the Importance and Performance (IP) grid that includes four quadrants: (a) Concentrate Here, (b) Keep Up the Good Work, (c) Low Priority, and (d) Possible Overkill.

A total of two EFAs were conducted to identify a simple structure among the items related to perceived importance and perceived performance. For the importance data, the Kaiser-Meyer-Olkin (KMO) value was .882, indicating that the degree of common variance was meritorious (Kaiser, 1974). The Bartlett's Test of Sphericity (BTS) was 2413.81 (p < .001), indicating that correlation between variables was large enough for factor analysis. Therefore, a factor analysis was deemed appropriate. In the EFA, two factors emerged, explaining a total of 63.82% of the variance. The scree plot test suggested a two-factor model. The factors were labeled as Event Security Management (ESM; 9 items) and Incident Management (IM; 2 items). Cronbach’s alpha coefficients for both factors were .90, indicating that items within the factors showed high internal consistency. For the performance data, the KMO value was .915 and the BTS was 3443.31 (p < .001), indicating that a factor analysis was deemed proper. An EFA revealed the same two factor structure, explaining 72.75% of the total variance. The scree plot test also supported the two-factor model. The same pattern of the factor loading was observed. Cronbach’s alpha coefficients for both factors were .94. Overall, the resolved factor structures were consistent with the conceptual model for developing the items in this study.

The results of IPA revealed that all 11 areas were found to have a negative P-I difference (p < .01), which indicated that there was a performance deficit in managing security and safety concerns of athletic venues across all three athletic Divisions. Subsequently, mean scores of importance and performance for Division I, II, and III were plotted on IPA grid separately. For Division I, it was revealed that four attributes of ESM (i.e., sport venue risk assessment,
sport security operations plan, sport venue emergency response plan, and sport venue evacuation plan) were located in the Keep Up the Good Work dimension, indicating that the need to maintain the current management procedures. Four variables of ESM (i.e., sport emergency response exercise, sport venue evacuation exercise, external game day audit, and security awareness training) were found be plotted on the dimension of Low Priority, indicating that current allocation of resources should be reduced. One attribute of ESM and two items of IM (i.e., briefing and debriefing of sport emergency responding agencies, National Incident Management compliance, and Incident Command System training) were plotted on the dimension of Possible Overkill, which indicates that current efforts should possibly be reduced.

For Division II, it was revealed that four attributes of ESM and one from IM (i.e., sport venue risk assessment, sport security operations plan, sport venue emergency response plan, sport venue evacuation plan, and Incident Command System training) were located in the Keep Up the Good Work dimension. With the exception of one item from IM, this pattern was similar to that of Division I. Four variables of ESM (i.e., sport emergency response exercise, sport venue evacuation exercise, external game day audit, and briefing and debriefing of sport emergency responding agencies) were plotted on the dimension of Low Priority. Two attributes, one from ESM and the other from IM (i.e., sport security awareness training and National Incident Management compliance) were plotted on the dimension of Possible Overkill.

For Division III, it was revealed that four attributes of ESM (i.e., sport venue risk assessment, sport security operations plan, sport venue emergency response plan, and sport venue evacuation plan) were located in the Keep Up the Good Work dimension. This observation was exactly the same as the Division I. Three variables of ESM and one item of IM (i.e., sport emergency response exercise, sport venue evacuation exercise, external game day audit, and briefing and debriefing of sport emergency responding agencies) were plotted on the dimension of Low Priority, which shows the same pattern of the Division II. Two attributes, one from ESM and the other from IM (i.e., security awareness training and Incident Command System training) were plotted on the dimension of Possible Overkill.

None of the variables used in this study were plotted on the dimension of Concentrate Here.

Assessing the level of preparedness by analyzing key stakeholders perceived importance and performance of plans and policies highlighted gaps in collegiate sport safety and security systems. The outcome of this study is beneficial to the NCAA governing body as it provides a snapshot of the safety and security landscape of their league members at each division and/or conference, specifically what their primary concerns are and to what extent they are prepared to handle an emergency incident. Identifying safety and security concerns of college athletic departments assists managers in the decision-making process to prioritize security efforts and provide strategic direction in security solutions.