

International Journal of Aquatic Research and Education

Volume 6 | Number 3

Article 6

8-1-2012

Organizational Support and Communication: A Case Study of a New Risk Management Tool for University Aquatic Supervision

Steven S. McCune

Duke University, steven.mccune@bc.edu

Richard Hsiao

Indiana University of Pennsylvania

Robert Kostelnik

Indiana University of Pennsylvania

Follow this and additional works at: <https://scholarworks.bgsu.edu/ijare>

Recommended Citation

McCune, Steven S.; Hsiao, Richard; and Kostelnik, Robert (2012) "Organizational Support and Communication: A Case Study of a New Risk Management Tool for University Aquatic Supervision," *International Journal of Aquatic Research and Education*: Vol. 6 : No. 3 , Article 6.

DOI: 10.25035/ijare.06.03.06

Available at: <https://scholarworks.bgsu.edu/ijare/vol6/iss3/6>

This Research Article is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in International Journal of Aquatic Research and Education by an authorized editor of ScholarWorks@BGSU.

International Journal of Aquatic Research and Education, 2012, 6, 215-225
© 2012 Human Kinetics, Inc.

Organizational Support and Communication: A Case Study of a New Risk Management Tool for University Aquatic Supervision

Steven S. McCune, Richard Hsiao, and Robert Kostelnik

Research of in-service training and risk management strategies suggests that there are dysfunctions among employees who have a lack of team understanding about risk management and risk plans (Ammon & Brown, 2007; Hsiao & Kostelnik, 2009). Furthermore, theorists who study the dynamics of employee-employer relationships provide evidence that strong interpersonal support fosters a healthy staff mentality with regard to organizational goal commitment (Eisenberger et al., 1986). A seven-point Likert questionnaire was administered to 15 student lifeguards at one Pennsylvania State System of Higher Education Division II institution. Twenty-four questions identified three dependent variables, two relating to organizational support, and one relating to communication about risk management. Pearson correlation coefficients were used to identify strong relationships between aspects of the Organizational Support Theory and a newly developed set of questions, the scale for Communicating about Risk Management (CRM); this questionnaire identifies to what degree employees hear their supervisor communicating about risk management plans and practices. The current research showed strong correlations between several variables. For example, there was a strong, positive correlation ($r = .75$, $p = .001$), between the following two variables, a perception that an organization shows concern for an employee is associated with safety audits that are being performed by the supervisor while an employee is on duty.

The current study suggests that a professional who builds supportive relationships with a staff focused on communication about safety can reduce aquatic risk and improve risk management practices at campus recreation facilities. Correlating perceived organizational support of employees with supervisor's communication about risk can provide aquatic professionals with a new tool for implementing better risk management practices.

A long history of tort litigation has allowed Americans to form legal protections that permit victims of negligent acts that occur during recreational activity to seek damages for compensation of loss. Guidelines provided by the American College of Sport Medicine suggest that fitness facilities provide waiver forms to be signed at the time of membership as a means of protection for both the patron and the

Steven S. McCune is Director of Aquatics at Duke University in Durham, NC. Richard Hsiao and Robert Kostelnik are with the Health and Physical Education Department at Indiana University of Pennsylvania in Indiana, PA.

organization (Tharrett, McInnis, & Peterson, 2007). The current study demonstrates a proactive method to reduce loss and injury by fostering a supportive organizational atmosphere and to improve effective communication about aquatic risks.

Research completed in 2009 suggested risk management models existed but were rarely used because they were no longer up to date or on par with industry standards (Hsiao & Kostelnik, 2009). Thus, it is first a duty to adopt new and more effective risk plans and, secondly, to communicate these plans with support and commitment. This communication and support are the deciding factor in the effectiveness of sport risk management. More specifically, in aquatic settings, lifeguards must be an active part of this process. As stated earlier, deficiencies exist in the training process of recreational staffs (Ammon & Brown, 2007). Clement (2005) insists that there exists a standard of care that must be maintained, and this is the most important job when protecting patrons. This standard of care is an expected service of safety and responsibility provided by facilities that invite guests to participate in recreational activities. This should always be the gauge of effectiveness in maintaining risk models (Clement, 2005).

Fortunately, data reports show that drowning-related injuries and deaths have fallen since the 1960s because of better lifeguard surveillance, but drowning still remains the second leading cause of death in youth and young adults (Saluja et al., 2006; CDCP, 2008). Ethnic groups remain disenfranchised from opportunities in aquatic training and economic hardships directly correlate to higher drowning rates (Saluja et al., 2006). Regardless of this statistical dichotomy, risk teams need to be proactive in preventing emergencies in any aquatic facility. The problem lies in the inactive training behaviors recorded in the research of Ammon and Brown (2007). They contend many aquatic managers fail to provide adequate in-service training to their lifeguard staffs. Supporting data suggest some aquatic managers are even hired without proper training or experience (Hsiao, 2007). To reverse these findings, the aquatic professionals of the aquatic industry need to remain committed and to renew their fervor for practicing the risk management plans that mitigate and eliminate the propensity for injury and death.

The purpose of this study is to examine correlative data to discover whether there is support for developing a matrix of Organizational Support and Communication about Risk Management to measure complacencies in aquatic settings. This study revealed that an effective way to prompt better risk preparedness is to use the Organizational Support Theory and a scale created by the researchers called the CRM (Communication about Risk Management). In tandem, the new matrix provides a test of the maximization of communication and support in the aquatic setting. The review of literature explains in greater depth the Organizational Support Theory and risk management research that helped construct this new matrix. The methodology and results will demonstrate these correlations and show that a reversal in poor risk management is possible by simply forming better relations with guard staff prompting stronger commitment to organizational risk procedures.

Review of Literature

Through open lines of communication, Blake and Mouton (1964) indicated a point at which organizations can achieve maximization of productivity through a team-oriented management style along with a strong commitment from employees to achieve organizational goals. Eisenberger and his colleagues have identified the

same findings in their analysis of global perceptions of organizations from the subordinate's point of view (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Goal commitment is the variable that makes an organization successful. In the professional field of aquatics, the goals include safety and accident prevention. If aquatic managers begin to understand the ways to improve organizational support, and strive for better communication about risk management with lifeguards, then the industry can effectively begin to mitigate what Ammon and Brown (2007) identified as programmatic hazards, hazards that exist at the guard-supervisor relational level of support and communication.

An Explanation of Organizational Support Theory

Eisenberger and colleagues' (1986) theory of organizational support suggests that an employee will form a global (overall) perception of an organization based on the organization's attention to employee's contribution and personal well-being. Perceived organizational support is the viewpoint of an employee about how well the organization recognizes the actions and commitments of the individual. Perceived supervisor support is the viewpoint of the employee about how well the supervisor recognizes the actions and commitments of the individual. If these support factors are both highly recognized, the employee tends to reciprocate with a high level of commitment to organizational goals often demonstrated in low turnover and low absenteeism. In contrast, if the employee's perception of support is low, the employee tends to have a negative attitude toward the goals of an organization and turn over and absenteeism increase. When this occurs, goals are not achieved and the organization begins to suffer (Eisenberger et al., 1986; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002).

On the same account, according to Hofmann and Morgeson (1999), safety-related behaviors such as reporting dangers, protecting others from dangers, and safety vigilance are highly dependent upon a high perceived organizational support by the employee. Hsiao (2005) created the A.D.I.E. risk management model. This technique allows for a risk management team to first assess the facility for potential hazards, diagnose the risk, and subsequently intervene and evaluate the mitigation based on written documentation for each incident.

Rhoades and Eisenberger (2002) reviewed over 71 studies to further identify the antecedents and consequences of perceived organizational support (POS). An employee will form a global perception of an organization based on antecedents such as fairness, supervisor support, organizational rewards, and positive job conditions. As a consequence, the employee will exhibit support of organizational goals, demonstrate quality job performance, experience reduced strain, have an increased desire to remain, and demonstrate a noticeable decrease in withdrawal behaviors such as absenteeism (Eisenberger et al., 1986). In much the same way, Rhoades and Eisenberger (2002) submit that, although not dependent upon the organizational perception, perceived supervisor support (PSS) of the employee cultivates the same antecedents and consequences.

Researchers have demonstrated that perceived supervisor support is often higher than perceived organizational support because employees spend more time with their immediate supervisor on a daily working basis (Eisenberger et al., 2002). Therefore, direct and constant contact with a supervisor will strengthen a member's support for organizational goals. As well, employees perceive their supervisors to

exemplify the organizations fundamental spirit, thus strengthening an employee's global perception of the organization (Eisenberger et al., 2002). This is the premise upon which the POS/PSS-CRM matrix is built; aquatic managers must be supportive if they expect lifeguards to implement effective risk management and provide better prevention to mitigate injury and death.

Understanding Programmatic Hazards

Programmatic hazards exist at the communicative level of facility management. This is where all the planning, preparations, and training occur. Hazards are caused by inadequate supervision, lack of rule enforcement, improperly trained members, a failure to adequately instruct, a failure to perceive patron fitness ability, or a failure to warn patrons of inherent dangers (Ammon & Brown, 2007). It is the research team's contentions that utilizing the organizational support theory and communicating actively about risk management through in-service trainings are two simple ways to mitigate programmatic hazards. As aquatic professionals, we must use a managerial style that is most conducive to gaining the commitment of our lifeguard aquatic staffs.

Team-Oriented Management Promotes the Highest Support and Productivity

The team-oriented management style produces the highest level of productivity because of the concern for people *and* productivity. Blake and Mouton (1964) demonstrate this on their managerial grid, which contends that leadership exists as five unique styles. It is the fifth or team style that is important to this research. Speaking to subordinates as a team member, involving them in the risk process, and being more considerate of their personal well-being all help to reduce programmatic hazards. The team-oriented manager is most in tune with the staff and the goals of productivity; productivity in this case is the efficiency of the safety procedures and enforcement of safety behaviors in and around the water. Safety can be achieved through innovative ideas, fluid communicative styles, and training (Fawcett, 2005). Fawcett submits that less committed staff members must become comfortable with one another, and social activities help foster the effectiveness of on duty preparedness and in-service training reviews. In short, team-centered management is an effective means to improve risk prevention, and the team leader must exude the enthusiasm and commitment to gain the reciprocation of his staff. Communicating about risk management must be a key part of effective safety strategies.

Communicating Risk Protocol

Fletemyer and Temme (2003) as well as Ammon and Brown (2007) stress the importance of in-service training for aquatic staffs. Eisenberger et al. (2002) suggest the more interactive an organization and supervisor are with the team member, the more likely the team member is to support the mission of the organization. Organizational commitment must be achieved and training must take place regularly and maintained throughout the course of employment.

Clayton and Thomas (1989) present this idea as a "moral obligation to provide maximum protection to facility users" (p. 66). Clement (2005) emphasizes much

the same proposal. Aquatic personnel cannot uphold this charge if they are not continuously trained in lifesaving techniques (Ammon & Brown, 2007). Avoiding negligent acts and accepting the legal responsibilities associated with running an aquatic facility are very important for protecting patrons.

Aquatic professionals depend on lifeguards to act as the first line of defense against civil litigation caused by negligence. Lifeguards not only survey the water, they report and identify foreseen risks. In the case of this study, the lifeguard team used the A.D.I.E. model to create well-documented cases of risk mitigation. If a matrix can be created to determine programmatic hazards based on support and communication, managers across the industry may better prepare their staffs and themselves for an effective risk plan and prevention strategies. Through trust, extended responsibility, and affection, a good leader can depend on quality staff members to carry out this job (Liden & Graen, 1980). This study poses the following three research questions:

Research question 1. What is the global perceived organizational/supervisor support of the lifeguard staff?

Research question 2. What is the global perception of risk communication between guard and supervisor?

Research question 3. What statements of the SPOS/SPSS scales correlate with statements on the CRM scale?

Method

This study examines the strength of correlations that exist among statements on three scales. The first scale measures perceived organizational support (SPOS). The second measures supervisor support (SPSS), and the third measures communication about risk management (CRM). The statistical analysis determined the overall global perceptions of organizational/supervisor support and communication strength between the PASSHE university aquatic staff and manager. To undertake this study, it was necessary to gain access to the lifeguard staff contact information. This was done by consent of the aquatic supervisor.

Participants

A total of 15 participants ($n=15$) from the recreational lifeguard staff were randomly selected from a university of the Pennsylvania State System of Higher Education (PASSHE). These 15 respondents were asked to complete a 7-point, Likert-scale questionnaire consisting of 24 items. Their information was collected via Qualtrics online research suite. Automatic coding protected respondent identity. This confidentiality agreement was identified in the consent form provided at the time of participation. The mean scores of the group were recorded, which provided feedback on the *global* perceptions of both the organization and the supervisor support. The mean scores of the third scale determined the global perception of the quality of communication about risk management, which was taking place between lifeguards and supervisor at the time. The data have been stored online in a secure Qualtrics account owned by the researchers.

Instruments/Procedures

An adapted version of the Survey for Perceived Organizational Support and Perceived Supervisor Support (SPOS/SPSS) was used as developed by Eisenberger et al. (1986). This represented the most reliable statements of the original 36-item questionnaires. The researchers made no modifications of these scales. Sixteen statements (eight for perceived organizational and eight for perceived supervisor support) were given to the sample group to determine their global attitudes toward the organization and supervisor. The two surveys are identical to one another except where “organization” was used in the Scale for Perceived Organizational Support; “supervisor” was used as a substitute on the Scale for Perceived Supervisor Support. The commitment statements on each scale were separated by how employees may make judgments about the organization based on felt support. These include satisfaction with employee performance (1 & 8), appreciation of an employee’s extra effort (2), employee’s satisfaction on a job (6), employee’s personal well-being (3, 4, & 7), and improved job performance (5).

A third, 8-point Likert-scale questionnaire, created by the investigator called CRM was used to measure global communication about risk management between lifeguard and supervisor. Similar to the SPOS/SPSS questionnaires, communication statements were placed into three groups: transactional communication about risk (1, 5, & 8), employee’s active involvement in risk management (2 & 4), and provided in-service training (3, 6, & 7).

First, the researchers wanted to see the level of global perceived organizational and supervisor support as well as the strength of the communication about risk management at this particular facility. To accomplish this, the researchers used the tools provided by Qualtrics online survey system. The Qualtrics e-mail system distributed secure, individualized links, which were sent to each unique recipient. E-mails were distributed, and two reminder e-mails were sent out within a four-week period. The survey remained open for a period of 45 days. Qualtrics directly exported the data into the SPSS19 analytical software. This controlled for human error when coding. The investigators reverse-coded questions 2, 3, 5, & 7 for both sections 1 and 2 of the questionnaire as directed by Eisenberger et al. (1986) as a control for agreement bias. Finally, the mean of all respondent information for each scale was recorded to determine the perceived organizational and supervisor support as well as the health communication about risk management.

The second part of the study used Pearson coefficient correlations to determine if any significant relationships existed between items on the Communication about Risk Management (CRM) scale and statements on the SPSS and SPOS scales. The researchers recorded reliability, significance and correlation of the strong relations between the scales.

Research and Data

The questionnaire contained three scales and 24 statements based on a 7-point Likert-scale 1 (*strongly disagree*) to 7 (*strongly agree*). All three scales were tested for reliability (internal validity) using Cronbach’s α . Perceived organizational support (POS) = 0.91, perceived supervisor support (PSS) = 0.95, and communication about risk management (CRM) = 0.83 (Table 1).

Table 1 Reliability for Perceived Organizational Support, Perceived Supervisor Support, and Communication About Risk Management

Scale	Cronbach's α
SPOS	0.91
SPSS	0.95
CRM	0.83

When calculating Pearson correlations, the researcher tested for significance at the 0.01 level (2-tailed). The relationships between questions on the POS scale and the CRM scale were investigated using Pearson product-moment correlation coefficients. Similarly, the relationships between questions on the PSS scale and the CRM scale were investigated using Pearson product-moment correlation coefficients. Preliminary analysis was performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

Results

Global Support and Communicativeness

Test one. What is the global perceived organizational/supervisor support of the lifeguard staff?

The average global perceived organizational support was high with a mean of 7 (*strongly agree*). However, for item number two (2) on the scale: My organization would fail to appreciate any extra effort from me, the mean was 4 (*neither agree nor disagree*). Although not a poor score, it would be generally beneficial for an organization to recognize more effort demonstrated by employees who are willing accomplish goals. Similarly, the average global perceived supervisor support was also high with a mean of 7 (*strongly agree*). This supports the existing findings that attention and support from the supervisor typically results in a high perception because of the constant involvement with the staff on a daily basis cultivated a sense of intimacy.

Test two. What is the global perception of communicativeness between guard and supervisor of the lifeguard staff?

Communication about risk management in this case study is extremely high with a mean of 7 (*strongly agree*). The only deviation from this high score was the perception that the lifeguards are guarding the pool for too long a period with a mean score of 2 (*disagree*); this is typical feedback received from guards throughout the industry.

Test three. Which statements of the SPOS/SPSS scales correlate with statements on the CRM scale?

The study discovered many correlations between the statements made on the CRM scale and the two scales measuring organizational and supervisor support. All correlations are listed in detail in Tables 2 and 3. For a more user accessible reference, two charts establishing the correlations are provided (Tables 2 & 3).

Correlations

Test four. There was a strong, positive correlation ($r = .65, p = .008$) between two variables, with a high perception that the organization cares for the well-being of the employee being associated with good supervisor communication about the risk management plan. In addition, there was a strong, positive correlation ($r = .75, p = .001$) between two variables, with high levels of perception that an organization shows concern for the employee associated with strong levels of perception that safety audits are being performed by the supervisor while an employee is on duty. Finally, there was a strong, positive correlation ($r = .74, p = .002$) between two variables with high levels of perception that the organization takes pride in the employee's accomplishments associated with a strong perception that random safety audits are being performed by the supervisor while the employee is on duty (Table 2).

Test five. There was a strong, positive correlation ($r = .65, p = .009$) between two variables, with high levels of perceived communication about risk management associated with high levels of perceived care from the supervisor about the employee's personal well-being. There was also a strong, positive correlation ($r = .70, p = .004$) between two variables, with high levels of perception that the supervisor reviews risk policies and procedures with the guard associated with high levels of perception that the supervisor cares for the employee's well-being. Further, there was a strong, positive correlation ($r = .69, p = .005$) between two variables, with high levels of perception that the supervisor performs random safety audits while the employee is on duty associated with high levels of perception that the supervisor cares for the employee's well-being. In addition, there was a strong, positive correlation ($r = .68, p = .006$) between two variables, with high levels of perception that the supervisor performs random safety audits while the employee is on duty associated with high levels of perception that the supervisor cares for the employee's general job satisfaction at work. Another strong, positive correlation

Table 2 Positive Correlations Between Perceived Organizational Support and Communication about Risk Management

Correlations	<i>r</i>	<i>n</i>	<i>p</i>
Highly perceived organizational care of employee well-being is associated with good communication about risk management by the supervisor.	.65	15	.008
Highly perceived organizational concern for the employee is associated with a high perception that the supervisor is performing safety audits while the employee is on duty.	.75	15	.001
High perception that the organization takes pride in the employee's accomplishments is associated with a high perception that the supervisor is performing random safety audits while the employee is on duty.	.74	15	.002

Table 3 Correlations Between Perceived Supervisor Support and Communication About Risk Management

Correlations	<i>r</i>	<i>n</i>	<i>p</i>
Highly perceived care from the supervisor about the employee's well-being is associated with highly perceived communication about risk management.	.65	15	.009
Highly perceived care from the supervisor about the employee's well-being is associated with a high level of perception that the supervisor reviews risk policies and procedures with the employee.	.7	15	.004
High perception that the supervisor cares for the employee's well-being is associated with a high level of perception that the supervisor performs random safety audits.	.69	15	.005
High perceptions that the supervisor cares about the employee's general job satisfaction at work is associated with a perception that the supervisor performs random safety audits while the employee is on duty.	.68	15	.006
High perception that a supervisor takes pride in an employee's accomplishments is associated with a perception that the supervisor performs random safety audits while the employee is on duty.	.7	15	.003
High perception that the supervisor would listen to complaints from the employee is associated with the perception that an employee is free to communicate aquatic risks with the supervisor.	.74	15	.002

($r = .70$, $p = .003$) exists between two variables with a high level of perception that the supervisor performs random safety audits while the employee is on duty associated with high levels of perception that the supervisor takes pride in the guards accomplishments at work. Finally, there was a strong, positive correlation ($r = .74$, $p = .002$) between two variables with high levels of perception that the employee is free to communicate aquatic risk with the supervisor associated with high levels of perception that the supervisor would listen to complaints from the employee (Table 3).

Discussion and Conclusion

The strong positive correlations indicated that risk management planning and communication had created a commitment to safety by this team of lifeguards. Overall, the institutional staff involved in this case study demonstrated a strong ability to

work as a team, they appeared to be dedicated to the committed goal of safety and prevention, and they demonstrated strong communication about risk management as a lifeguarding team.

We should reemphasize that in-service drills, frequent communication, and supporting the staff are keys to the safety and discipline at an aquatic facility. This study defined some correlations between communication about risk management and Eisenberger et al.'s (1986) ideas of perceived organizational and supervisor support and the positive effects these relationships can have on aquatic safety. The participants of this study continually used the A.D.I.E. model to inform the supervisor of foreseeable risks. This form of documentation provides grounding evidence of the clear communication and global organizational support felt by the staff.

Recall the review of literature pointed out that the best ways to involve one's staff in the risk process were to provide random safety audits and in-service training sessions. These two variables were highly correlated with a perception of care for the wellbeing and general satisfaction of the employees. This supported the research completed Ammon and Brown (2007) and Fletemyer and Temme (2003), who recommend these two methods of safety and quality control.

Making an effort to support the lifeguards is a way to meet organizational goals of health and safety. This study shows that this can be done by team-style management methods. This type of employee-productivity can only exist if the staff is encouraged and led in the mitigation process; without these members, supervisors would miss out on valuable information gathering. Therefore, aquatic professionals in the college setting should experiment with using team-style of management to achieve the goal of safety in aquatic facilities. If aquatic professionals do not pay close attention to the guard staffs and fail to involve them to the fullest extent possible, they run the risk of falling victim to programmatic hazards that may lead to injury and death. Complacency in training and poor attentiveness to an employee's well-being can jeopardize great programs at university aquatic facilities.

It is extremely easy for student workers to assume some basic responsibilities and then mindlessly go with the flow of day-to-day business. This case study took into consideration the basic assumption that college students have extremely busy schedules, and work-study is just a small part of their day. In the aquatic setting, it is essential that we do not allow this type of complacency to invite danger to our facilities. We must remind our workers of the importance of aquatic risk management. One way to accomplish this is through attentiveness and genuine care for our student-lifeguard staffs. This can make all the difference with regard to their attitudes about defending patrons against injury and death. The student worker-sport administrator relationship can prove to be a strong bond of safety if a fluid dynamic exists between the two. With this in mind, the organization can only grow stronger and the facility a safer place for all.

We recommend that a more in-depth longitudinal study with a larger sample size drawn from several institutions be completed to verify the validity of our case study correlations. Each academic semester, a group of lifeguards should be given the questionnaire as part of an evaluation process by their direct supervisor. This will allow the aquatic supervisor to become more aware of the state of the facility and any risks that may be mitigated through clearer communication. Structural feedback only goes to improve any organization, so it is very important that life-

guards feel free to communicate foreseen risks to the supervisor. As the research has shown, openness in management and a team mentality can help tremendously in the ongoing battle against complacency.

References

- Ammon, R., & Brown, M. (2007). *Risk management process*. In Cotton, D.J., & Wolohan, J.T. (Eds.), *Law for recreation and sport managers* (4th ed.). Dubuque, IA: Kendall/Hunt Publishing Company.
- Blake, R.R., & Mouton, J.S. (1964). *The managerial grid: Key orientations for achieving production through people*. Houston, TX: Gulf Publishing Company.
- Centers for Disease Control and Prevention. (2008). Water-related injuries: Fact sheet. Retrieved September 16, 2009, from: <http://www.cdc.gov/ncipc/factsheets/drown.htm>.
- Clayton, R.D., & Thomas, D.G. (1989). *Professional aquatic management* (2nd ed.). Champaign, IL: Human Kinetics.
- Clement, A. (2005). Aquatics and the law. In H. Appenzeller (Ed.), *Risk management in sport: Issues and strategies* (2nd ed.). Durham, NC: Carolina Academic Press.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *The Journal of Applied Psychology*, 71(3), 500–507. doi:10.1037/0021-9010.71.3.500
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I.L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *The Journal of Applied Psychology*, 87(3), 565–573. PubMed doi:10.1037/0021-9010.87.3.565
- Fawcett, P. (2005). *Aquatic facility management*. Champaign, IL: Human Kinetics.
- Fletemyer, J., & Temme, K. (2003). Effective aquatic risk management: Seven steps to lowering your liability. *Parks & Recreation*, 38(2), 42–47.
- Hofmann, D.A., & Morgeson, F.P. (1999). Safety-related behavior as a social exchange: The role of perceived organizational support and leader-member exchange. *The Journal of Applied Psychology*, 84(2), 286–296. doi:10.1037/0021-9010.84.2.286
- Hsiao, R., & Kostelnik, R. (2009). Are university swimming pools safe? A model To predict the number of injuries in Pennsylvania university swimming pools. *International Journal of Aquatic Research and Education*, 3(3), 284–301.
- Hsiao, R. (2007). Analysis of risk-management practices and legal issues in college natatoriums in Taiwan. *International Journal of Aquatic Research and Education*, 1, 341–362.
- Hsiao, R. (2005). The model development: Strategies for aquatic management. *Journal of Recreation and Leisure*, November 2007. Retrieved October 12, 2009, from <http://neon.byu.edu/~grayh/jrl2007.html#aquatic>
- Liden, R.C., & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management Journal*, 23, 451–465. doi:10.2307/255511
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of literature. *The Journal of Applied Psychology*, 87(4), 698–714. PubMed doi:10.1037/0021-9010.87.4.698
- Saluja, G., Brenner, R.A., Trumble, A.C., Smith, G.S., Schroeder, T., & Cox, C. (2006). Swimming pool drownings among U.S. residents aged 5- 24 years: Understanding racial/ethnic disparities. *American Journal of Public Health*, 96, 728–733. PubMed doi:10.2105/AJPH.2004.057067
- Tharrett, S.J., McInnis, K.J., & Peterson, J.A. (Eds.). (2007). *American college of sports medicine: ACSM's health/fitness facility standards and guidelines* (3rd ed.). Champaign, IL: Human Kinetics.